NATIONAL GEOGRAPHIC

HISTORY

SISTINE SPLENDOR
MICHELANGELO'S MASTERPIECES

BUILDING A BRONZE GOD
THE COLOSSUS OF RHODES

ROME'S VESTAL VIRGINS
KEEPING THE HOME FIRES BURNING

ACES WILD
TOP GUNS OF WORLD WAR I

NOVEMBER/DECEMBER 2018

PLUS:

King Nebuchadrezzar
Builder of Babylon, Sacker of Cities

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—M., Irvine, CA

"GET THIS WATCH."
—M., Wheeling, IL

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— Men's Journal

I'll Take Mine Black...No Sugar

In the early 1930s watch manufacturers took a clue from Henry Ford's favorite quote concerning his automobiles, "You can have any color as long as it is black." Black dialed watches became the rage especially with pilots and race drivers. Of course, since the black dial went well with a black tuxedo, the adventurer's black dial watch easily moved from the airplane hangar to dancing at the nightclub. Now, Stauer brings back the "Noire", a design based on an elegant timepiece built in 1936. Black dialed, complex automatics from the 1930s have recently hit new heights at auction. One was sold for in excess of $600,000. We thought that you might like to have an affordable version that will be much more accurate than the original.

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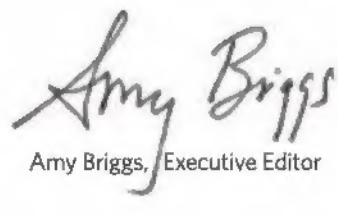
The Sistine Chapel ceiling can feel overwhelming. Myriad figures and colors compete for your attention, pulling your eye from one dramatic moment to the next. God creates the sun and the planets; the first man receives the spark of life; Adam and Eve are cast out of Eden; and terrified people flee the Flood. It's dizzying to try to take in all the action.

Calmer moments are found in the 12 portraits surrounding these iconic scenes. Seven of them are biblical prophets, and the rest are sibyls, five women from the classical world who could see the future. The beautiful Delphic Sibyl graces our cover, and the elegant Libyan Sibyl perches above.

Their presence on the Sistine ceiling not only provides moments of respite, it also reveals the respect that Michelangelo and his contemporaries felt for the past. Surrounded by Christian art, the sibyls are a quiet nod to Renaissance humanism, the deep reverence for the scholarship, art, and values of ancient Greece and Rome. To drive the arts and sciences forward in their own time, Renaissance scholars cast their gazes back and drew upon the greatness that came before them.



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Gary E. Knell, CEO
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Headquarters of Publisher and Publication:
1145 Seventeenth Street N.W., Washington, DC 20036
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	AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MOS.	SINGLE ISSUE NEAREST TO FILING DATE
	Nov 2017-Oct 2018	S/O 2018
A. TOTAL COPIES PRINTED (Net Press Run)	400,187	393,567
B. PAID CIRCULATION		
1. Outside-County Mail Subscriptions	177,636	175,104
2. In-County Mail Subscriptions	–	–
3. Single Copy Sales/ Non USPS Paid Distribution	69,932	74,312
4. Other Classes Mailed Through USPS	–	–
C. TOTAL PAID CIRCULATION	247,568	249,416
D. FREE DISTRIBUTION (includes samples, no news agents)		
1. Outside-County	3,458	2,550
2. In-County	–	–
3. Other Classes Mailed Through USPS	–	–
4. Free Distribution Outside the Mail	–	–
E. TOTAL FREE DISTRIBUTION	3,458	2,550
F. TOTAL DISTRIBUTION (Sum of C and E)	251,026	251,966
G. OFFICE USE, LEFTOVER, ETC.	149,161	141,601
H. TOTAL (Sum of F & G)	400,187	393,567
I. PERCENT PAID	99%	99%

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National Geographic History (ISSN 2380-3878) is published bimonthly in January/February, March/April, May/June, July/August, September/October, and November/December by National Geographic Partners, LLC, 1145 17th Street, NW, Washington, DC 20036. Volume 4, Number 5. $29 per year for U.S. delivery. Periodicals postage paid at Washington, DC, and additional mailing offices. **SUBSCRIBER:** If the Postal Service alerts us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address within two years. **POSTMASTER:** Send address changes to *National Geographic History*, P.O. Box 37545, Boone, IA, 50037. In Canada, agreement number 1000010298, return undeliverable Canadian addresses to *National Geographic History*, P.O Box 819 STN Main, Markham, ON L3P 9Z9. We occasionally make our subscriber names available to companies whose products or services might be of interest to you. If you prefer not to be included, you may request that your name be removed from promotion lists by calling 1-800-647-5463. To opt out of future direct mail from other organizations, visit DMAchoice.org, or mail a request to: DMA Choice, c/o Data & Marketing Association, P.O. Box 643, Carmel, NY 10512.

NATIONAL GEOGRAPHIC

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VOL. 4 NO. 5

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Produced during the reign of King Nebuchadrezzar II, a roaring lion once adorned Babylon's Processional Way in the sixth century B.C.

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In Prague 400 years ago, Protestants threw three Catholics out a tower window, an act of "defenestration" that would trigger Europe's devastating Thirty Years' War.

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KATE D. SHERWOOD/SMITHSONIAN INSTITUTION

MPI/GETTY IMAGES

NPS/NATHAN KING

TOP LEFT: Archaeologists carefully excavate the surgeon's pit at Manassas National Battlefield Park. **ABOVE:** Kari Bruwelheide of the Smithsonian Institution examines remains found at the site. **BOTTOM LEFT:** An illustration of the Battle of Second Manassas (also known as the Second Battle of Bull Run) depicts the violent confrontation fought in August 1862.

BATTLEFIELD ARCHAEOLOGY

Civil War Surgeon's Pit Reveals Soldiers' Fates

A pioneering study of human bones found at Manassas National Battlefield Park exposes the life-or-death choices of Civil War combat surgeons.

The discovery of a surgeon's pit at a Civil War battlefield has shed new light on the wounded and the doctors who tried to save them.

In 2014 the National Park Service found bone fragments while working on a utility project at Manassas National Battlefield Park in Virginia. They sent the remains to the Smithsonian Institution's National Museum of Natural History. Analysis of the bones confirmed that they were human and dated to the Civil War (1861–65).

Excavations were led by the battlefield park's superintendent, Brandon Bies, and the Smithsonian's Douglas Owsley, Ph.D., and Kari Bruwelheide. Their teams uncovered two complete skeletons and 11 amputated limbs, telltale signs of a surgeon's burial pit. The first of its kind ever studied at a Civil War battlefield, the site is revealing valuable details about the men who fought and the field surgeons who healed them.

ARCHAEOLOGISTS FOUND AN ENFIELD BULLET EMBEDDED IN A FEMUR FROM THE PIT.

KATE D. SHERWOOD/SMITHSONIAN INSTITUTION

AGONIZING PROCEDURE
A surgeon performs an amputation in a rare image taken in a field hospital in Fort Monroe, Virginia, during the Civil War.

SPL/AGE FOTOSTOCK

MANASSAS NATIONAL BATTLEFIELD PARK

Z. FRANK/ALAMY/ACI

THE KINDEST CUT

SURGEON'S TOOLS from the 1860s, used during the U.S. Civil War

THE COUNTRY DOCTOR MUSEUM

IN THE 1860s a stomach wound could be a death sentence. Most injuries, however, affected soldiers' limbs, which surgeons almost always opted to amputate—a process often undergone without anesthesia. Given the trauma of such a procedure, speed was crucial. The severed limbs found in the Manassas pit reveal signs of considerable skill and accuracy in the marks left behind by the surgical saw. It is believed that the field surgeon would first use a scalpel to cut the tendons and flesh around the circumference of the limb until reaching the bone. Peeling back the tissue, he then cut through the bone. The whole process perhaps took less than 10 minutes—a short time from a surgical perspective, but an interminable ordeal for the patient.

SAW MARKS REVEAL THE FATE OF AN AMPUTATED LEG BONE FOUND AT THE MANASSAS SITE.

KATE D. SHERWOOD/SMITHSONIAN INSTITUTION

Artifacts of Battle

Fought 25 miles southwest of Washington, D.C., the Battle of First Manassas (also known as the First Battle of Bull Run, named for a nearby creek) was fought in July 1861. In August 1862 a second, larger battle occurred in the same location.

Artifacts, including buttons from a Union jacket and an Enfield rifle bullet lodged in a femur, dated the pit to the second battle. Confederate forces used Enfield rifles only at the second battle, a clue that suggests that the deceased men were most likely Union soldiers. Isotope analysis confirmed the two skeletons were young white men both from the Northeast.

The bones granted insight into 19th-century combat hospitals. If a man was too badly injured, as the two skeletons appeared to be, doctors might decide to let him die. If they decided to amputate, an agonizing and traumatic procedure, evidence on the bones suggests it was performed with great precision.

In June 2018 the National Park Service transferred the remains to the U.S. Army for a September interment in Arlington National Cemetery. The two fallen soldiers were buried in coffins using 19th-century designs and fashioned from a 90-year-old tree that fell on the Manassas battlefield in a 2018 windstorm.

Vitus Bering: Explorer of Dire Straits

Charged by Peter the Great to explore the territory between Asia and North America, this Danish-born sailor braved brutal conditions just to reach eastern Siberia. From here, he discovered the strait that bears his name at the cost of colossal hardship and, ultimately, tragedy.

Connecting Two Continents

1681

Vitus Bering is born in Denmark. In 1704 he will join Tsar Peter I's new Russian Navy.

1725

Bering sets out for Siberia. His mission, given him by Peter the Great, is to establish if Asia and North America are connected.

1728

Bering sails through the strait between the two continents, but the North American coast is hidden from sight by fog.

1730s

Planning begins for Russia's Great Northern Expedition to map Siberia and the North American coast, in which Bering will play a key role.

1741

Bering sets foot in North America, but the Danish commander dies before he can return to Russia.

Although Siberia feels far away to many Americans, it actually sits only about 55 miles from Alaska, which is separated from Asia by the glacial waters of the Bering Strait. The man for whom that narrow passage was named played a vital role in Russia's early 18th-century attempts to expand into North America. Among the very first Europeans to lay eyes on the coast of Alaska, Vitus Jonassen Bering is credited as commanding the first crew to cross from Asia to northwestern America in modern history, in circumstances of extraordinary hardship and heroism.

The Call of the Ocean

Despite serving several tsars and tsarinas, Bering was not a Russian, but a Dane. He was born in 1681 in the Danish port of Horsens. Rather than head off to university when he was a teenager, he instead signed up to go to sea. Young Vitus sailed on several Dutch and Danish voyages before signing up for the Russian Navy in 1704.

The timing was perfect for a young seaman with talent and ambition. In the 1690s Peter the Great had started building up the Russian Navy as part of his plan to modernize his vast but socially and technologically backward country. Esteemed for their seamanship, Denmark's sailors were well respected, which explains Bering's quick ascent through the ranks and his close working relationships with the tsar's most respected admirals.

After declaring himself emperor in 1721, Peter mulled several grand imperial projects, many of which were never realized before his death in 1725. But one question obsessed him to the very end of his life: Were Asia and North America linked by land, or divided by sea?

Just before his death in February 1725 (January in the old, Julian calendar, which Russia still used), Peter issued instructions to Bering: He must venture to the farthest reaches of Siberia and sail up the coast until he reached North America. "Then go to some European colony; and when European ships are seen, you are to ask what the coast is called . . . then, after charting the coast, return to Russia."

The First Voyage

Since the time of the European Voyages of Discovery, the existence of a northwest passage had been the subject of much speculation and the lure for many fruitless expeditions before Bering.

Talented sailors like Bering were welcomed into Peter the Great's newly created Russian Navy.

PETER THE GREAT IN AN 18TH-CENTURY PORTRAIT. CHÂTEAU DE VERSAILLES, FRANCE

AKG/ALBUM

BERING (LEFT) AND CHIRIKOV IN 1741. PAINTING BY IGOR PSHENICHNY, 1989. CENTRAL NAVAL MUSEUM, ST. PETERSBURG
FINE ART/ALBUM

THE LOOK OF A HERO

VITUS BERING HAS achieved the rare distinction of being a hero of both his native Denmark and adopted Russia, but there is little consensus as to what he looked like in life. One portrait of him showed him with a round, chubby face and long hair, but experts now widely believe the painting is of his uncle, not him. This 1989 illustration shows Alek-sey Chirikov (co-commander of his 1741 expedition) with the Dane (left), who has indistinct features. In 1991 Bering's body was exhumed by a joint Danish-Russian expedition, allowing experts to study his skull. Based on this analysis, it is now believed his face would have been long and thin, and his body athletic.

Ironically Bering was not the first European to pass through the strait. In 1648 a Russian, Semyon Dezhnyov, sailed through the passage. His report of his journey was lost in a government archive in Yakutsk. It did not resurface until 1736, several years after Bering had been credited with the discovery.

Bering's expedition took the long, overland journey to Russia's Pacific coast. The trek was torturous: Many members of his expedition almost died from famine but survived by chewing on leather straps. Only in 1728, having overcome colossal difficulties of supply and construction, did Bering and his crew embark on a ship called the *St. Gabriel*. They reached the island of St. Lawrence and found no land bridge linking Asia and North America. Instead, they sailed through a strait separating the two continents. Thick fog prevented the explorers from glimpsing land on the North American side.

Returning to St. Petersburg after this important but inconclusive first expedition, Bering was given little time for respite before being asked to go back. When Russia's empress Anna (Peter's niece) ordered that he undertake a second trip across Siberia, the Dane accepted.

Back Into the Fray

The Great Northern Expedition (1733-1742), as it would later be called, was an exploratory project on a vast scale. With nearly 1,000 total participants, seven separate expeditions launched under different leaders. The overall aim was to

LOST AT SEA
A colored woodcut of a 19th-century illustration depicts the partial wrecking of Bering's ship in 1741. In reality, there would only have been one ship, as Bering's *St. Peter* had, by then, lost contact with the other ship in the expedition, the *St. Paul*.

AKG/ALBUM

map the eastern limits of Siberia and the North American coastline as well as document the regions' botany, ethnography, and astronomy.

After yet another arduous overland journey, Bering arrived for the second time in his life at the Kamchatka Peninsula in eastern Siberia. This time, he had a larger crew, including the German scientist Georg Wilhelm Steller, who made numerous botanical and zoological discoveries on the journey.

After many initial setbacks, the construction of two ships set to sail east was completed. In early June 1741 (according to the western, Gregorian calendar), Bering embarked from Kamchatka, commanding the *St. Peter* while Lieutenant Aleksey Chirikov commanded the *St. Paul*. There was considerable confusion and disagreement about the course they should take.

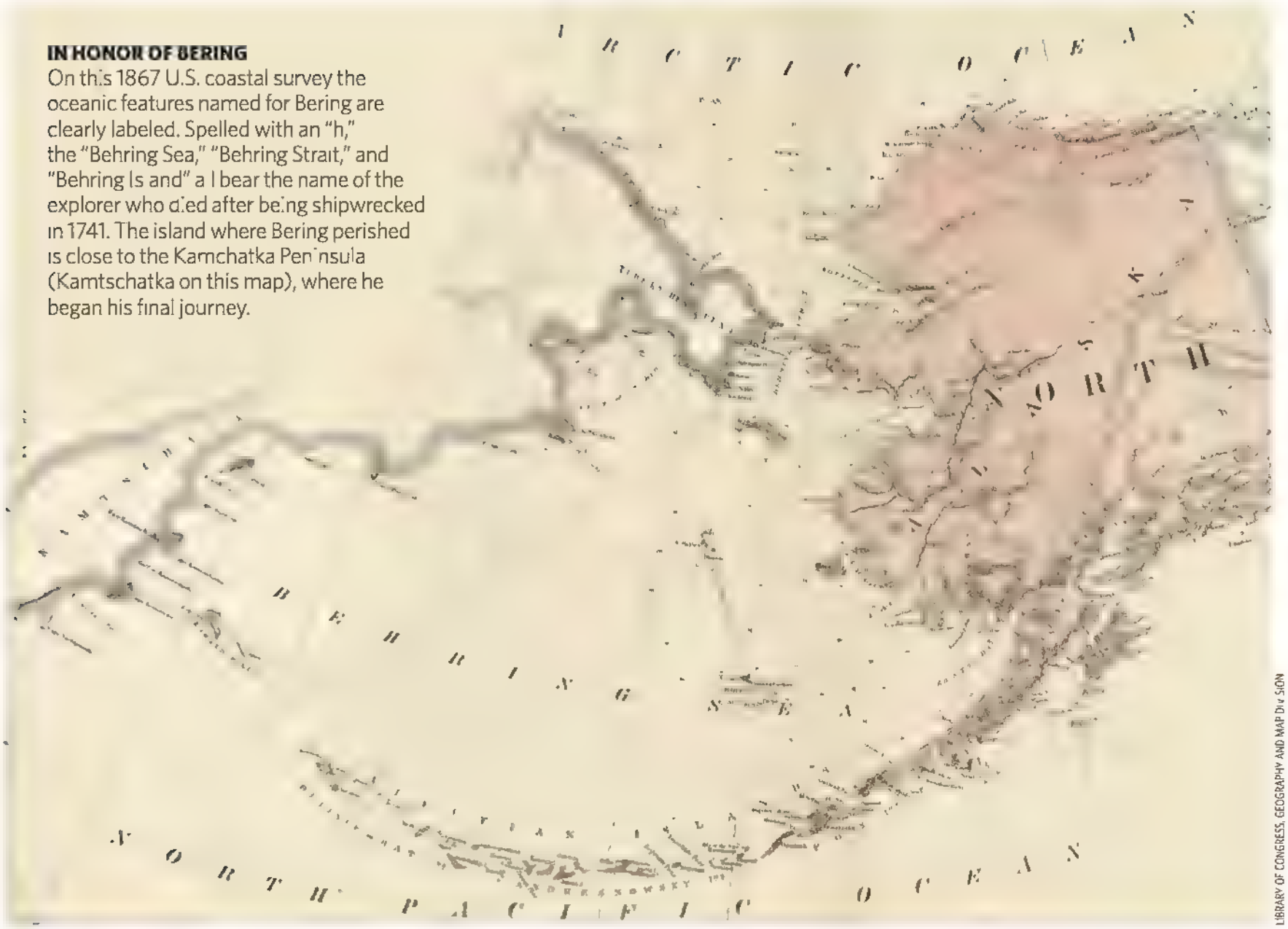
Later in June, a dense fog and violent storm separated the two ships. Chirikov's *St. Paul* waited for a few days and searched in vain for Bering's ship before continuing without it. In July, Chirikov sighted the North American coastline. He sent some of his men ashore in small boats, but they failed to return. Believing it too dangerous to go ashore and running low on resources, Chirikov decided to return to Siberia and left Bering's ship to its fate. The *St. Paul* finally made it back in October with only half of its original crew intact.

Meanwhile, Bering's vessel, the *St. Peter*, had taken a northeasterly route in the hope of finding land. On July 16, the crew spotted a great, snowy mountain range rising majestically above a wooded coast-

BERING'S BURIAL

VITUS BERING DIED and was buried on Bering Island (right). In 1991, when his body was exhumed, experts found that scurvy did not kill Bering as previously thought. The findings do not pinpoint an exact cause of death, but they do confirm the accounts of crew member Georg Steller, who noted that Bering suffered from hunger, fatigue, and cold.

SPUTNIK/ALBUM



IN HONOR OF BERING
On this 1867 U.S. coastal survey the oceanic features named for Bering are clearly labeled. Spelled with an "h," the "Behring Sea," "Behring Strait," and "Behring Island" all bear the name of the explorer who died after being shipwrecked in 1741. The island where Bering perished is close to the Kamchatka Peninsula (Kamtschatka on this map), where he began his final journey.

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line: the St. Elias Mountains that stand on what is now the border between Canada and the United States. Following the coast, they landed on an island (now named Kayak Island) to obtain provisions and, in so doing, became the first Europeans to set foot in Alaska. The company did not linger on the island; the naturalist Steller allegedly sniped that 10 years of preparation yield only 10 hours' worth of findings. Nonetheless, the naturalist devoted many hours to surveying and documenting life on the island.

Shipwrecked and Stranded

The explorers continued their journey, but soon scurvy began to take its toll. In September, seeing that winter was drawing in, Bering, who had fallen ill, decided to return to Kamchatka. At the end of September a storm surprised the *St. Peter* and almost wrecked it. They managed to keep the vessel afloat, but with most of the crew already laid low they struggled to make way in the heavy seas.

In November 1741 they anchored at what is now Bering Island, a small desolate island about 100 miles from the Kamchatka Peninsula. Another storm damaged the *St. Peter,* leaving the men with no choice but to overwinter in makeshift shelters. Bering perished on December 19 and was buried by his men. In spring 1742 Chirikov embarked on a rescue mission to find Bering's crew. They sailed close to Bering Island, but did not stop there. Foul weather forced their return, and the *St. Peter*'s crew remained stranded.

More men perished amid the hostile conditions on the island, but the survivors were able to build a boat. In September 1742 they finally made it back to the Kamchatka Peninsula and brought back information on the indigenous peoples and the rich supply of otter and fur seals.

Bering's expedition paved the way for Russian colonies in North America. By 1784 Russia had established a fur-trading colony near present-day Kodiak. The exploitation of resources triggered frequent resistance from the indigenous peoples. In the 19th century Russia lost interest in the colony. In 1867 it sold the territory to the United States for $7.2 million.

Even if Bering's name was not immediately well known after his death, it lives on in the various places that bear his name now: an island, a glacier, a strait, even a sea. His name has also been given to one of humanity's most important geological features: the former land bridge between Asia and North America that existed during the last ice age, and which had once allowed humans to cross, on foot, back and forth from continent to continent.

—Francesc Bailón

Out the Window: The Defenestration of Prague

Four hundred years ago, a group of Bohemian nobles flung three men out a window, an act that triggered the Thirty Years' War, one of the worst conflicts in European history.

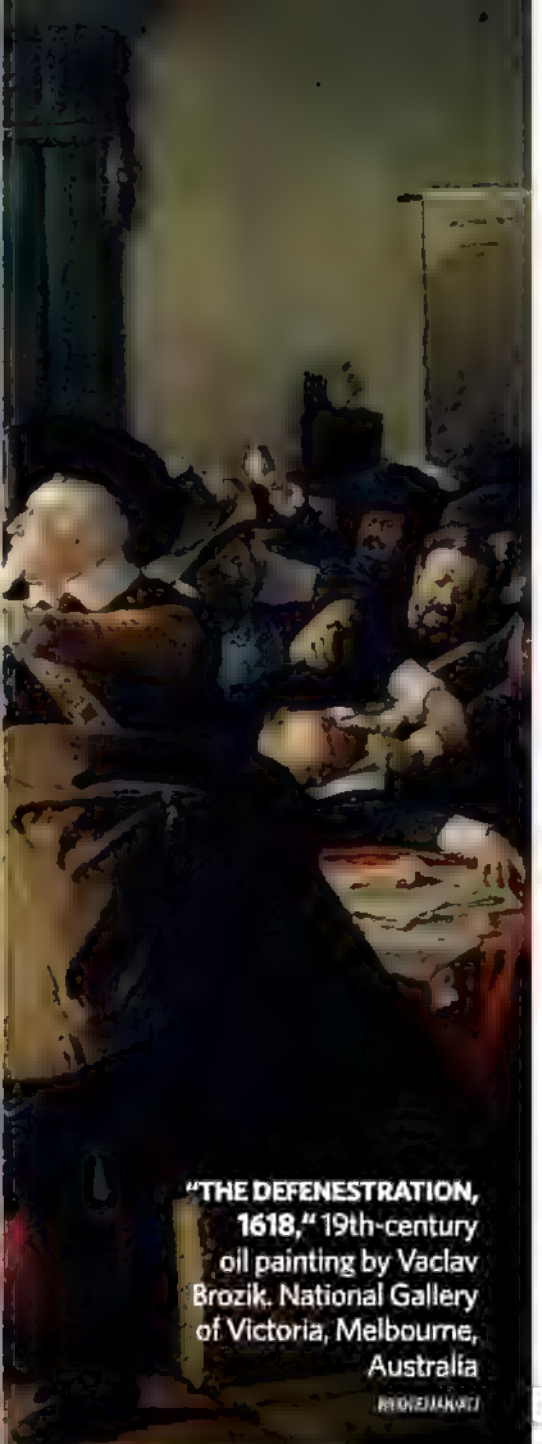
On a chilly Prague morning in May 1618, a group of angry men hurried up the steep path to Hradčany Castle. They stormed the staircase to the council chamber where representatives of the Catholic Holy Roman Empire were meeting. By the end of this confrontation, three men would be defenestrated—thrown out the window—and Europe would be on the path to a lengthy and devastating conflict.

One of Bohemia's Protestant noblemen, Count Matthias Thurn led the group. He rallied local Protestants by claiming that the imperial Catholic regents were plotting to revoke religious and political freedoms enshrined in the Letter of Majesty, issued in 1609 by the Holy Roman emperor Rudolf II.

The events that followed had fateful consequences not only for the kingdom of Bohemia but for much of Europe. Although none of those present could foresee it, the Defenestration of Prague, as it came to be known, became a trigger for the Thirty Years' War, one of the most destructive conflicts in history. The war would ensnare the powers of Europe and drastically redraw the map by the time it was all over in 1648.

An Empire Divided

Founded in 800 by the Frankish king Charlemagne, the Holy Roman Empire was a confederation of kingdoms in



"THE DEFENESTRATION, 1618," 19th-century oil painting by Vaclav Brozik. National Gallery of Victoria, Melbourne, Australia

BRIDGEMAN ART

TALES OF TOWERS

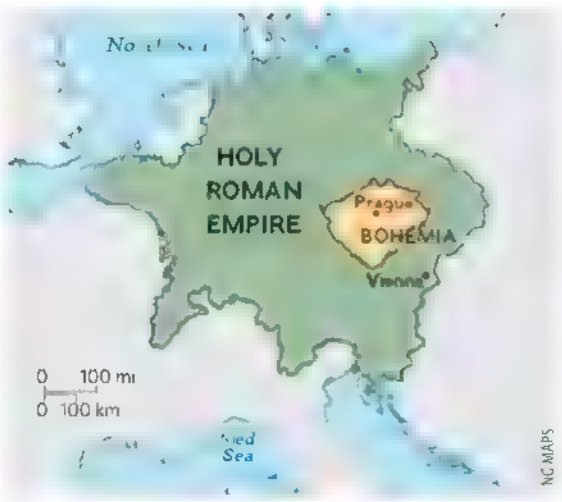
THE TOWER (right) from where the Habsburg regents were thrown in 1618 is part of the Old Royal Palace at Prague's Hradčany Castle. The complex of buildings began as wooden structures on the Hradčany Hill above Prague in the ninth century, at around the time the Bohemia region became Christianized. Rebuilt and extended over the centuries, its many architectural styles are spread over more than a hundred acres. Another notorious tower of the castle complex is the 15th-century New White Tower. In 1620, early in the Thirty Years' War, Habsburg prisoners taken at the Battle of White Mountain were held there prior to execution.

ALEXANDR POSCHEJPAL/FOTOSTOCK

central Europe stretching from northern Italy up to the Baltic Sea. Bohemia was one of these kingdoms, and the city of Prague was its capital. Holy Roman emperors were typically chosen by seven prince-electors. Dynasties, like the Austrian Habsburgs, often came into power and were able to hold onto it.

Following the Protestant Reformation of the 1500s, the empire began to split between the Protestant north and the Catholic south. By 1618 Bohemia was sitting squarely on this religious fault line, which caused great tension for its political and religious leaders.

Among Bohemia's nobles and general population, Catholics were the minority. While Protestants constituted a majority, they themselves were divided into factions. Lutheranism predominated among German speakers, especially immigrants in areas near the Saxon frontier. Some nobles had embraced Calvinism. Although this denomination was technically illegal

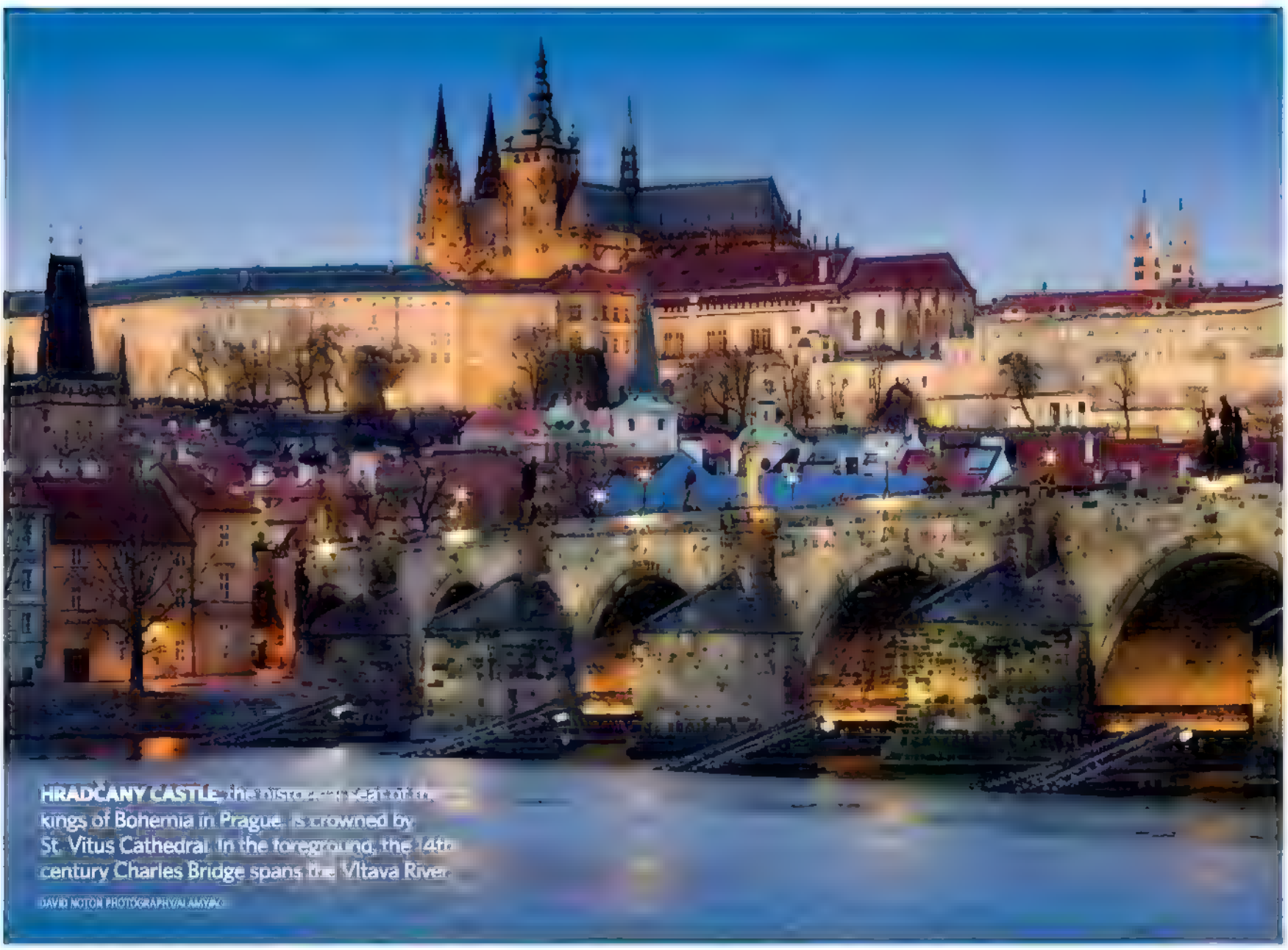


within the Holy Roman Empire, Calvinists did enjoy the same legal protections generally afforded to the Lutherans. Other Protestants adhered to Utraquism, a faith that emerged in the early 15th century from pre-Lutheran challenges to the Catholic Church.

This complex situation created opportunities for the Catholic Habsburgs to attempt to recover what was sacrificed in the 1609 Letter of Majesty. Emperor Matthias, who came to power in 1612, tried to negotiate with Protestants, but other Habsburg figures were less conciliatory, especially Archduke Ferdinand, who would succeed Matthias as emperor in 1619. Catholicism became a test for political loyalty, and Catholics were given the lion's share of court and military appointments.

Arguing that Thurn and his associates had forced the Letter of Majesty upon an unwilling Rudolf II, the Habsburg authorities applied a strict interpretation of its provisions and pulled back on religious freedoms. Sensing that he was losing ground, Thurn and his Protestant associates tried to rally support in March 1618 but failed to persuade the moderate majority to do anything more than send a complaint to Vienna.

The Habsburgs received the petition and responded by ordering the Bohemian Protestants not to assemble. Thurn organized a meeting anyway, on May 21,



HRADČANY CASTLE, the historical seat of the kings of Bohemia in Prague, is crowned by St. Vitus Cathedral. In the foreground, the 14th-century Charles Bridge spans the Vltava River.

DAVID NOTON PHOTOGRAPHY/ALAMY

where he accused the Catholic regents Jaroslav Martinic and William Slavata of interfering with the right of free assembly claimed under the Letter of Majesty. The meeting was poorly attended, prompting Thurn to convene a third session in a private house on May 23. During the speeches, a citizen burst into the room crying that the regents had prevented the city council from meeting, which triggered Thurn and his men to storm up the hill to the castle.

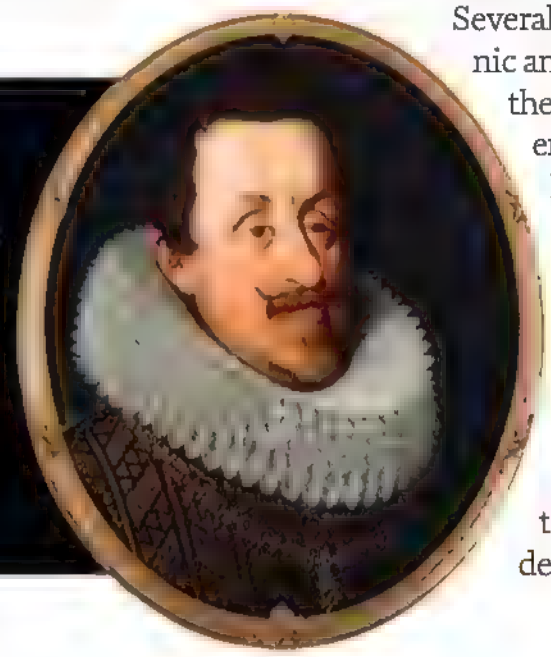
Four regents were in the tower, and the Protestants presented them with a list of offenses and demanded to know who had forbidden the assembly. The four said they were not authorized to say who had given the orders. Several of Thurn's men then grabbed Castellan Adam von Sternberg and Grand Prior Diepold von Lobkowitz and pinned them against the wall until they denied writing the order. They were roughly taken from the room as the angry crowd turned on the two remaining regents, Slavata and Martinic.

Descent into War

Several of Thurn's party seized Martinic and threw him out the window "in the old Bohemian manner" (in reference to a previous defenestration in Prague that had taken place early in the 15th century). Martinic, it is reported, "ceaselessly called out the names Jesus, Mary as he fell." One of his assailants mocked, him, saying "We shall see whether his Mary will help him," but on going to the window to look, saw that Martinic had "survived his fall despite his corpulent body."

FERVENT FERDINAND

WHEN WAR BROKE OUT after the defenestration, Emperor Matthias's staunchly Catholic successor, Ferdinand II, showed his steel. Having routed the rebels near Prague in 1620, Ferdinand persecuted Protestants, forcibly imposing Catholicism on Bohemia and parts of Austria.



FERDINAND II, IN A 1624 PAINTING. PALAZZO PITTI, FLORENCE
AKG/ALBUM

The Fall Guys

ACCOUNTS of the events in Prague spread rapidly across Europe, often spiced with exaggerations tailored to specific audiences. Protestant readers of this contemporary Dutch engraving (right) would have been reminded of their own revolt against Catholic Spain. Hurled from the castle window, the Catholic victims land comically on ① a pile of manure, a detail fabricated to humiliate the men and rob their survival of any miraculous qualities. ② A crowd of observers is also fanciful, perhaps there to emphasize the sense of spectacle. ③ The central figure on the right is one of the victims, making his escape.

Warhafftige Zeitung
Aus Praag
Darinnen kürtzlich vermeldet wird/ der gefährliche Zustandt/ welcher über die Evangelische Stände hat ergehen sollen/Aber von Gott dem Allerhöchsten verhütet worden/vnd hernachmals sich das Widerspiel begeben/ das es vber die Rahtgeber (so Gott vnd dem Landesfrieden zuwieder/) selbsten außgangen / Auch wie sich einer von den räheltinsführer/aus angst seines bösen Gewissens / zu den Capucinern München ins Kloster verstecket / entlichen aber herauß geben müssen/ vnd den Evangelischen Ständten gefänglichen vberantworret. Wie sie dann auch ferner jhr eigen bekändtnuß gethan/ vnd vmb Gnade gebeten.
1
2
3
INTERFOTO/AGE FOTOSTOCK

Thurn then pointed to Slavata: "Worthy lords, there is the other one." Slavata was pushed head first through the same window. In desperation, he grabbed at the sill, but "someone hit his fingers with the hilt of a dagger so that he was sent hurtling downwards." The regents' secretary, Philip Fabricius, was last to be tossed out the window.

It was a long way down from the tower window, some 70 feet. The men's survival has been credited to the grassy glacis at the foot of the tower. All three men also wore thick woolen clothing that would have cushioned their landings.

The three men eventually escaped from Prague to inform the Habsburg authorities of their ordeal. Catholics across Europe celebrated their survival as a miracle, and would mark the site with a tall column. Fabricius, the secretary, was later ennobled as von Hohenfall—"of the high fall."

The men's escape offered an opportunity for both sides to step back from the brink—albeit briefly. In their official justification published on May 25, the defenestrators claimed they were merely defending Bohemia's traditional rights, and that they were still loyal Habsburg subjects.

The Habsburgs continued to offer negotiations. Even so, the defenestration achieved Thurn's objective of forcing Bohemia's elite to choose between taking a stand or seeing their rights continue to erode. Sensing Habsburg weakness, they began arming and appealing for foreign aid. The Habsburg authorities insisted that there could be no talks until the Protestants backed down.

The tragedy triggered by the defenestration had already been set in motion. While all wanted to avoid war, all felt that firm military action would force their opponents to negotiate. This turned out to be a tragic miscalculation, and a long, bloody struggle ensued.

The Thirty Years' War pulled in powers from all over Europe—Spain, the papacy, the Dutch Republic, Denmark, Sweden, and France. Mercenary armies ravaged much of Germany, a region in which war, famine, and epidemics inflicted a loss of around 20 percent of its population.

When the war ended in 1648, Europe had been transformed. Spain's power had declined, France was in the ascendant, and the Holy Roman Empire, while still officially existing, was weakened. The connections linking the patchwork of small sovereign states began to fray, and the empire would cease to be in 1806.

—Peter H. Wilson

Learn more

BOOK
The Thirty Years War: Europe's Tragedy
Peter H. Wilson, Belknap Press, 2011

NEBUCHADREZZAR II OF BABYLON

THE BUILDER

The Bible depicts Nebuchadrezzar II and his city as doomed, but to his own people,

MIGHT AND MANE
A snarling lion from the sixth century B.C. once lined Babylon's broad Processional Way that led from the Ishtar Gate, built by Nebuchadrezzar II. Louvre Museum, Paris. Below: A stela from the sixth century B.C. depicts Nebuchadrezzar II, along with details of the monuments he restored and built.

LION: FRANCK RAUX/RMN-GRAND PALAIS
STELA: THE SCHØYEN COLLECTION, OSLO AND LONDON

BARBARA BÖCK

KING

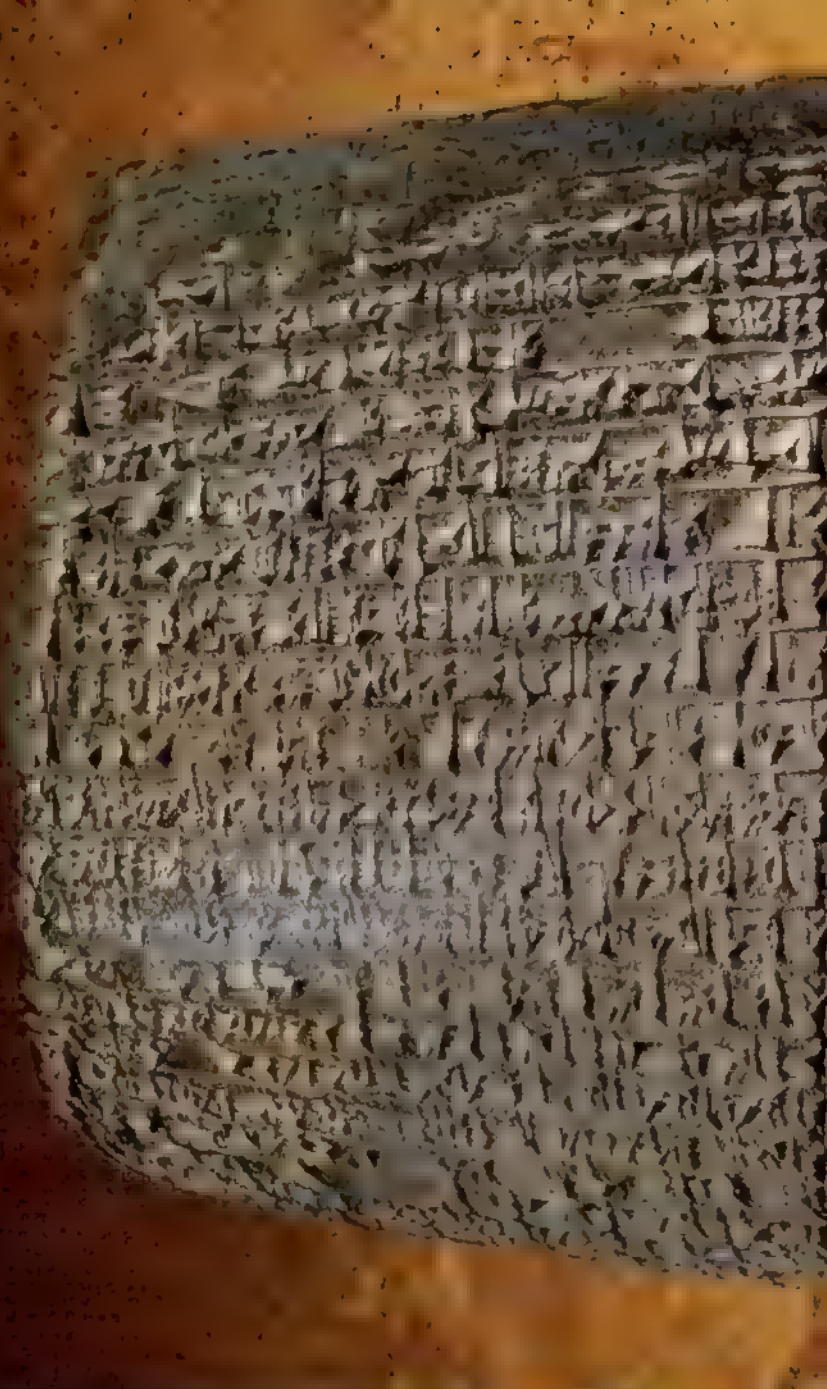
he restored Babylon to glory.

PALATIAL
Photographed in the 1920s, the ruins in Babylon of a palace of Nebuchadrezzar (above) were found during the first major digs at the site in the 1880s and '90s.

AKG/ALBUM

PAST PASSION

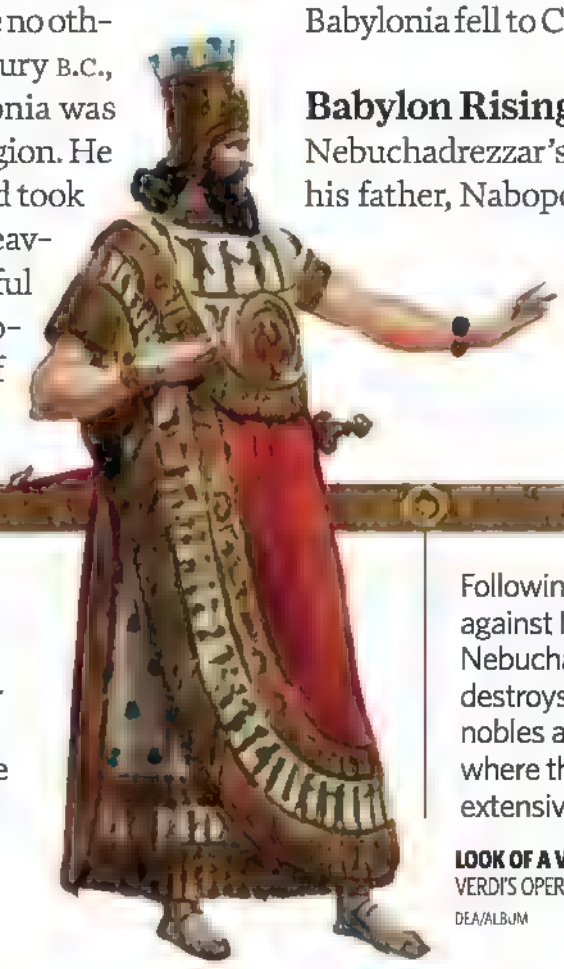
THE CHALDEANS were fascinated by their place in history. Nebuchadrezzar II's urban renewal projects were inspired by Babylon's past glory, and he made sure he left a record for future kings—such as the cylinder inscription (right), detailing three palaces he built. Nabonidus, last of the Chaldean kings before Babylon fell to Cyrus the Great in 539 B.C., was a weak leader but a talented archaeologist. It is said he unearthed inscriptions from the great Hammurabi, who had ruled Babylon some 1,200 years previously.



Nebuchadrezzar: A name rich with color, strength, and prestige belongs to one of the few Babylonian kings known by name today. Conqueror of kingdoms and restorer of Babylon, he left behind a legacy like no other. Born in the seventh century B.C., he came to power as Babylonia was regaining its power in the region. He built on this momentum and took Babylonia to new heights, leaving behind Babylon's beautiful Ishtar Gate and the grand Processional Way. His capture of Judah and exile of Jerusalem's Hebrews would have a profound impact on Judaism's sacred texts, many of which were composed in Babylon. Nebuchadrezzar's empire would not long survive him. A short 22 years after his death, Babylonia fell to Cyrus the Great, king of Persia.

Babylon Rising

Nebuchadrezzar's feats were built on those of his father, Nabopolassar, founder of the Chaldean empire. Governor of the region of Chaldea, Nabopolassar seized the throne of Babylonia around 625 B.C.,



605 B.C. — 587 B.C.

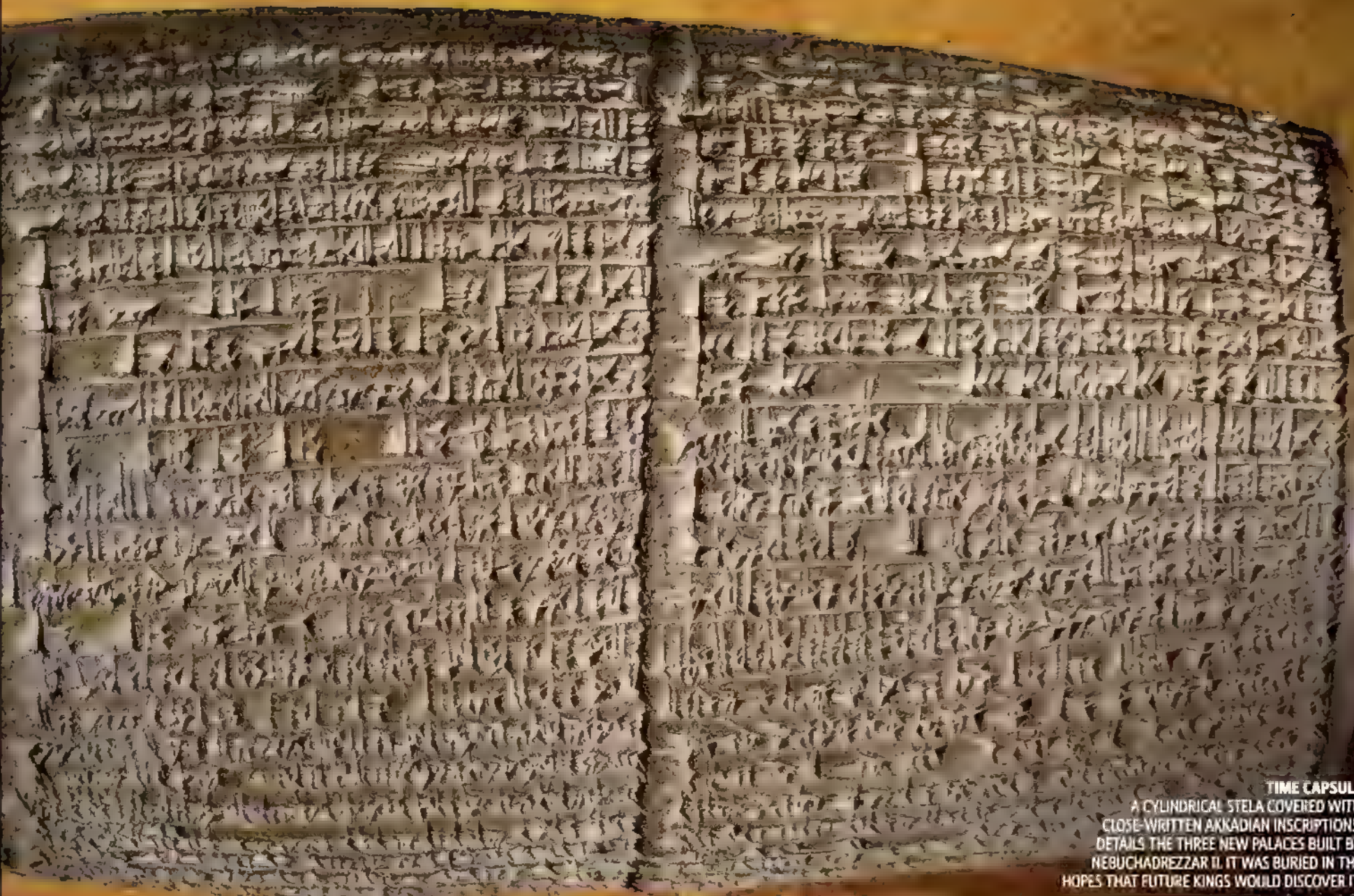
THE GREAT KING OF BABYLON

After defeating Egypt and Assyria at Carchemish, Nebuchadrezzar learns his father, Nabopolassar, founder of the Chaldean Empire, has died. Returning to Babylon, he is proclaimed its new ruler.

Following a series of revolts against Babylonian rule by Judah, Nebuchadrezzar II completely destroys Jerusalem's Temple. Its nobles are sent into exile to Babylon, where the king is carrying out an extensive rebuilding program.

LOOK OF A VILLAIN NEBUCHADREZZAR COSTUME DESIGN FOR VERDI'S OPERA *NABUCCO*, 1842. MUSEO TEATRALE, MILAN

DEA/ALBUM



TIME CAPSULE
A CYLINDRICAL STELA COVERED WITH CLOSE-WRITTEN AKKADIAN INSCRIPTIONS, DETAILS THE THREE NEW PALACES BUILT BY NEBUCHADREZZAR II. IT WAS BURIED IN THE HOPES THAT FUTURE KINGS WOULD DISCOVER IT.
ERICH LESSING/ALBUM

which until then had been controlled by the waning Assyrian Empire.

Nabopolassar forged a coalition with the Medes to the east and fought against the Assyrians for the next decade. In 612 B.C. they sacked Assyria's then capital Nineveh and toppled their rule. Babylonia had long been in the shadow of the Assyrians, and now it was time for their civilization to rise.

Dubbed the Neo-Babylonian or Chaldean Empire by historians, Nabopolassar's new kingdom faced strong threats, especially from Egypt, allies of the fading Assyrians. After the Battle of Megiddo in 609 B.C., Pharaoh Necho II took control of Judah, a small kingdom that would later play a large part in Nebuchadrezzar's story.

For the first years of Nabopolassar's reign, Egypt and Assyria continued to harass the new empire. His eldest son and crown prince Nebuchadrezzar became involved in the military as a young man. Sources say he began his career in his late teens or early twenties and became a military administrator around 610 B.C.

In several years, Nebuchadrezzar rose to commander. At first he led armies with his father, but took on sole command when Nabopolassar returned

LANDS OF THE CHALDEANS

A map of Nebuchadrezzar II's empire (below) shows its extension from the Mediterranean, through the valleys between the Tigris and Euphrates, and down to the Persian Gulf.

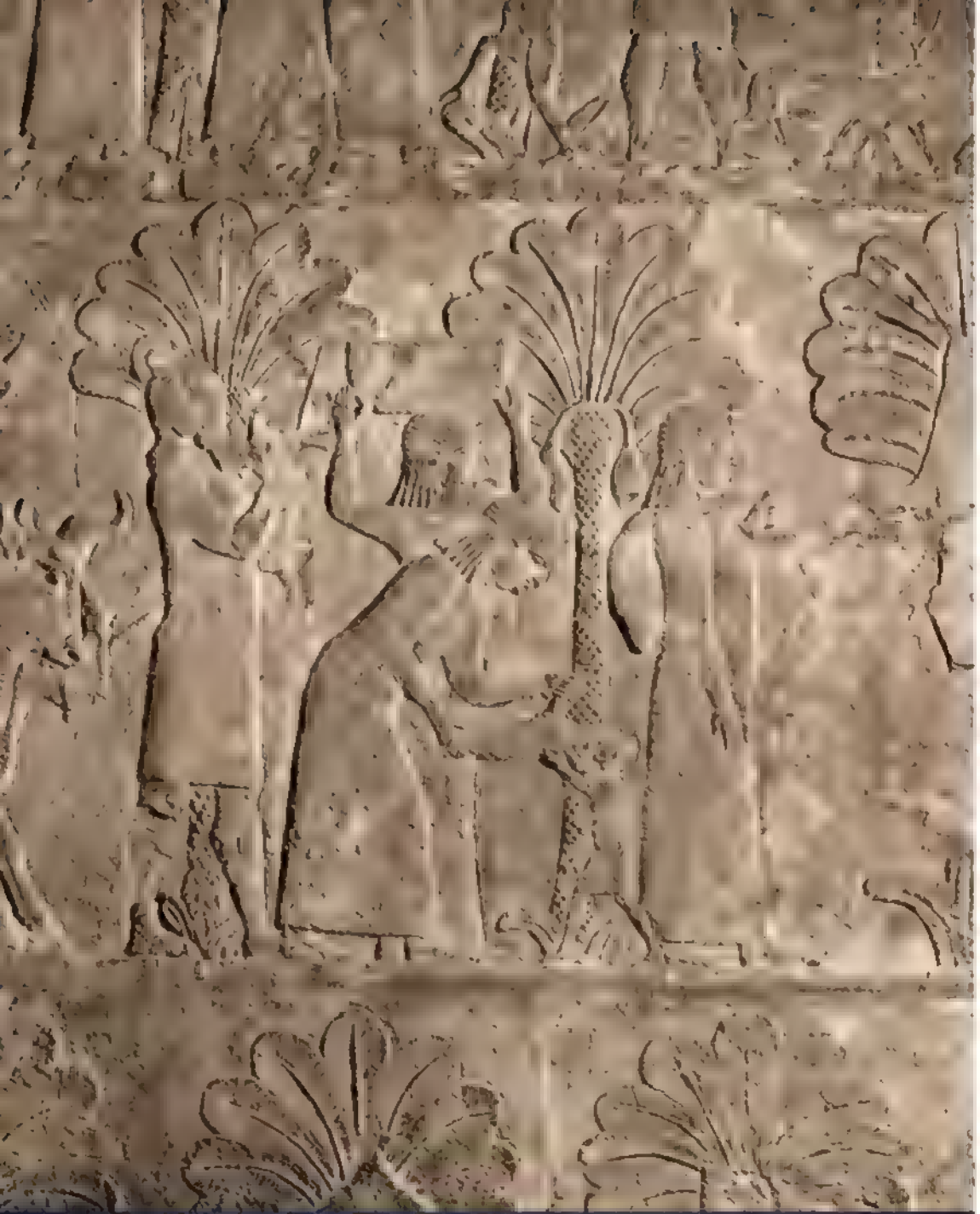
MERCHE HERNANDEZ

575 B.C.

The Ishtar Gate is built, the principal of Babylon's eight great entrances. Nebuchadrezzar also completes restoration of the Etemenanki ziggurat, damaged during an Assyrian invasion a century before.

561 B.C.

After a 44-year reign, Nebuchadrezzar II dies in Babylon. Only 22 years after his death, following a period of decadence, Babylon falls in 539 B.C. to the Persian king, Cyrus the Great.



DEPORTATION AND DESTRUCTION

PSALM 137 IN THE BIBLE curses Babylon and the Edomites, allies of Nebuchadrezzar II, and exhorts the Jews: "Remember, O Lord, against the Edomites the day of Jerusalem's fall, how they said, 'Tear it down! Tear it down! Down to its foundations!'" Razing a city following its conquest was standard practice in ancient Mesopotamia. Exactly the same fate had befallen Babylon when the Assyrians took it a century before the siege of Jerusalem. When the Chaldeans revolted, the Assyrian king Sennacherib laid siege to Babylon in 690 B.C. and defeated the rebels. "The corpses of men with no one to bury them filled the squares of Babylon," an inscription relates. Sennacherib exacted a more terrible punishment on the survivors: Babylon's temples were destroyed, their ruins flooded, and even the city's topsoil was hauled away. Like the Jews of Jerusalem, the Chaldean nobility of Babylon were also taken from the city into exile.

CHALDEAN PRISONERS ARE CAPTURED BY ASSYRIANS ON A SEVENTH-CENTURY B.C. STONE RELIEF (ABOVE) FROM THE PALACE OF SENNACHERIB, NINEVEH.

UIG/ALBUM

to Babylon. In 605 B.C. the crown prince soundly defeated Egypt and the remnants of the Assyrians at Carchemish in Syria. Returning to Babylon with Syria secured for the empire, Nebuchadrezzar learned that his father had died. Within three weeks, Nebuchadrezzar was proclaimed king of Babylonia.

Building Up Babylon

In Akkadian, the new sovereign's name, Nabu-kudurri-usur, means "Nabu [the Mesopotamian god of wisdom and writing], watch over my heir." He was named after Nebuchadrezzar I, Babylon's warrior king of the 12th century B.C., and pursued a path of expansionism. By the end of Nebuchadrezzar II's 44-year reign, the empire had grown immensely. It stretched from Palestine and Syria, occupied the fertile valleys of the Euphrates and Tigris, and swept down to the Persian Gulf. Cities were sacked, nobles were imprisoned, and peoples were exiled to Babylon. As the following inscription, now in the British Museum, may suggest, keeping the "peace" was a considerable burden on Nebuchadrezzar:

RESTORATION
A VIEW OF THE RESTORED RUINS OF BABYLON, NEAR MODERN-DAY BAGHDAD. CARRIED OUT BY THE IRAQI REGIME OF SADDAM HUSSEIN IN THE LATE 20TH CENTURY, THE RECONSTRUCTION IS CONTROVERSIAL TO MANY ARCHAEOLOGISTS.

FOTOSEARCH/AGE FOTOSTOCK

Far-off lands, distant mountains, from the Upper Sea to the Lower Sea, steep trails, unopened paths, where motion was impeded, where there was no foothold, difficult roads, journeys without water, I traversed, and the unruly I overthrew; I bound as captives my enemies; the land I set in order and the people I made to prosper.

Vassal states would pay heavy annual tribute to Babylonia and feed its growing treasuries with: "silver, gold, costly precious stones, bronze, palm-wood, cedar-wood, all kinds of precious things, to my city Babylon I brought."

Nebuchadrezzar II was by necessity a warrior, but by disposition he was a builder. The funds collected from his states helped finance his civic improvements. Nebuchadrezzar focused much of his building energies on restoring Babylon to its former glory. Years of war with the Assyrians the century before had led to the destruction of Babylon in 689 B.C. By restoring Babylon to glory, Nebuchadrezzar II was following in the footsteps of his namesake, the first Nebuchadrezzar, who, centuries before, had exalted Babylon over other cities, such as Nippur.

GLORY TO MARDUK AND NABU

A sixth-century B.C. seal (below) shows a priest praying before symbols of Marduk, patron of Babylon, and Nabu, god of writing and learning. Nebuchadrezzar's name invokes the latter.

ERICH LESSING/ALBUM

Continuing the work begun by Nabopolassar, the king built a great moat, defensive walls, and canals. He refurbished temples and sanctuaries, paved the Processional Way, and embellished his own legendary palace. Toward the end of his reign, around 575 B.C., he built what is probably Babylon's iconic ancient landmark: the Ishtar Gate, decorated with cobalt glazed brick reliefs.

In so doing, both Nebuchadrezzars exalted the god Marduk, Babylon's patron deity, over other gods in the Mesopotamian pantheon. Inscriptions exalt Nebuchadrezzar II as the "favorite of the god Marduk," the king of the universe, who has "no enemy from the horizon to the sky," creating a bond of greatness linking, god, king, and the city of Babylon.

If the favor of the god was regarded as crucial to the city, a more mundane resource—water—was also central to Babylon's preeminence. The biblical Psalm 137, in which the Hebrew captives sit and

COMING UPON NEBUCHADREZZAR'S BABYLON

In Nebuchadrezzar's time, a traveler approaching Babylon would first spy the mighty Etemenanki ("house of the foundation of heaven on earth"). Topped by the sanctuary of Marduk, Babylon's patron god, the six-story pyramid is believed to have inspired the biblical Tower of Babel. A very ancient structure, it was damaged in 689 B.C. by Sennacherib's sack of the city. Restoration was completed by Nebuchadrezzar II, who boasted: "I made it the wonder of the people of the world. I raised its top to the heaven." Moving closer, the traveler would see the strong, defensive walls, befitting what had become, in a short time, the most important city in the ancient world. After crossing the canals, the Ishtar Gate would come into view. Built over an existing structure by Nebuchadrezzar II in around 575 B.C., the 38-foot-high double gate led to the stately Processional Way, a walkway that linked the palace and the temple districts. A statue of Marduk was paraded along this boulevard during the Babylonian New Year.

"I pulled down the gates [and] had them remade of bricks with blue stone on which wonderful bulls and dragons were depicted . . . so that Mankind might gaze on them in wonder."

—Nebuchadrezzar II,
Inscription on the Ishtar Gate

ISHTAR GATE (RECONSTRUCTION)
SOL 90/ALBUM

BABYLON FROM ABOVE ▶
THE MONUMENTS BUILT BY NEBUCHADREZZAR II LIE THROUGHOUT THE CITY.
BYZANTIUM 1200 PROJECT

Etemenanki, topped with a
temple dedicated to
Western
bastion
Ishtar Gate
The city's principal
entrance
Southern
palace
Northern
palace

A RELIEF FROM A FOURTH-CENTURY A.D. SARCOPHAGUS LID, DEPICTING A JEWISH EXILE IN BABYLON REFUSING TO WORSHIP THE GODS OF NEBUCHADREZZAR II (SEATED)

RMN-GRAND PALAIS

DREAM INTERPRETATION

The Book of Daniel recounts Nebuchadrezzar's treatment of the Jewish captives in Babylon, and how their worship of Jehovah was tested. The relief to the left depicts the story in the third chapter of Daniel, in which Nebuchadrezzar sets up a statue and orders the people to worship it. They refuse, and the king orders them thrown into a fiery furnace. They emerge unscathed. Astonished, the king decrees toleration of their faith. A similar tale occurs earlier in the Book of Daniel, when the king is plagued by troublesome dreams. He threatens to execute anyone who cannot guess the content of the dream and explain it to him. Daniel prays to God, who guides him. Brought into Nebuchadrezzar's presence (right), he reveals to the king that his dream was about a statue made of different materials, an allegory for the empires that will rise after his: "No wise man . . . can show to the king the mystery that the king is asking, but there is a God in heaven who reveals mysteries," Daniel says. "He has disclosed to King Nebuchadrezzar what will happen at the end of days."

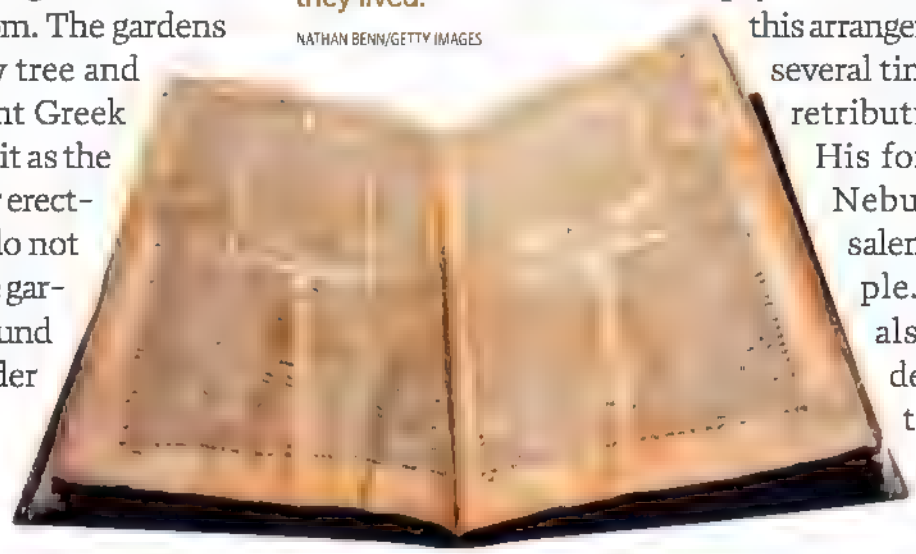
weep "by the waters of Babylon," may be a reference to Babylon's irrigation canals, the lifeblood of its economy and strength. Inscriptions present Nebuchadrezzar's canal system as a labor of Herculean proportions: "Alongside Babylon, great banks of earth I heaped up. Great floods of destroying water like the great waves of the sea I made flow around it."

This irrigation system may have fed one of Nebuchadrezzar's most famous and most mysterious accomplishments: the Hanging Gardens of Babylon, a wonder of the ancient world. Descriptions of this palatial complex say it had five courtyards, residences for the king and his consorts, and an ornate throne room. The gardens allegedly held species of every tree and plant from the empire. Ancient Greek historian Herodotus described it as the "most magnificent building ever erected on earth." Ancient sources do not provide an exact location for the gardens, nor have archaeologists found remains, leading some to wonder if they ever existed at all.

PEOPLE OF THE BOOK

Jewish communities in Babylonia and Palestine each created their own Talmud, a book of Jewish law, history, and scholarship. In its pages, shown in a 17th-century edition below, Jews would find an indispensable guide to their heritage no matter where they lived.

NATHAN BENN/GETTY IMAGES



Life in Exile

Nebuchadrezzar's name echoes down through time not only due to his restoration of Babylon but also for his place in Judeo-Christian Scripture. He plays a major role in several important episodes in the Old Testament, including the sacking of Jerusalem and the 70-year exile of the Jewish people to the city of Babylon.

After the defeat of the Egyptians and Assyrians at Carchemish in 605, the kingdom of Judah and the city of Jerusalem fell under Babylonian control. Like other vassal states, Judah had to pay tribute to Babylonia. Unhappy with this arrangement, Judean kings rebelled several times, but Nebuchadrezzar's retribution was swift and brutal. His forces invaded; in 587 B.C., Nebuchadrezzar razed Jerusalem and destroyed the Temple. Powerful Judeans were also captured and forcibly deported to Babylon three times: 597, 587, and 582 B.C.

In the Bible, the Prophet Jeremiah warns these Judean kings that God is unhappy because they have permitted the return of pagan worship. They must return to the ways of God, or risk his vengeance: God will use "Nebuchadrezzar of Babylon, [God's] servant," to "bring [the Babylonians] against this land and its inhabitants, and . . . will utterly destroy them" (Jeremiah 25:9). The Judeans, however, fail to heed Jeremiah's warnings, and the Babylonians descend.

Jeremiah was spared, but most of Judah's survivors went into exile in Babylonia. The pain of separation from home runs through the books of the Bible devoted to this time, resulting in some of its most beautiful passages. In his allegory of the Exile, Ezekiel casts Nebuchadrezzar as a "great eagle, with great wings and long pinions, rich in plumage of many colors." The eagle-king is presented as an instrument of God, who carries away the Jews and plants them as a seedling in "fertile soil; a plant by abundant waters, he set it like a willow twig" (Ezekiel 17:3-5). The experience profoundly shaped Jewish religious and national identity.

Hebrew culture took root and flowered in Babylon as the exiles built a community centered on religious life. Despite later being allowed to return to rebuild Jerusalem, many Jews stayed in Babylon. For centuries, the Babylonian community was a strong center of the Jewish faith. The Babylonian Talmud, one of the central texts of Jewish religious law and theology, was produced there.

Nebuchadrezzar died in 561 B.C. He was succeeded by three, short-lived and weak rulers, the last of which, a child king, was murdered by Nabonidus. Despite this violent power grab, Nabonidus was a scholarly man uninterested in politics, and proved to be the last of the Chaldean rulers. In 539 B.C. Cyrus the Great of Persia used Babylon's canals to breach the city and seize it. The long reign of the Persians began, the Jewish exile was ended, and Babylon began a new chapter under new rulers, still regarded as the greatest city in the ancient world.

BABYLON SPECIALIST **BARBARA BÖCK** IS A RESEARCHER AT THE INSTITUTE OF MEDITERRANEAN AND MIDDLE EASTERN LANGUAGES AND CULTURES IN MADRID, SPAIN

THE KING'S DREAMS

The captive Daniel interprets Nebuchadrezzar II's dream (above) in a 17th-century oil painting by Mattia Preti (Il Cavaliere Calabrese). Private collection

BRIDGEMAN/ACI

FABLED FIGURE
Louis de Caullery's 17th-century painting depicts the Colossus astride the port of Rhodes, a stance that has since been debunked by historians.
Louvre Museum, Paris

CHRISTOPHEL FINE ART/GETTY IMAGES

WONDER OF THE WORLD

THE COLOSSUS OF RHODES

Standing for a little more than 50 years in the third century B.C., Rhodes's titanic statue of Helios made a colossal impact on Western art, history, and imagination.

ROSA MARÍA MARINO SÁNCHEZ-ELVIRA

The Bronze Giant

408 B.C.
Having united to create a commercial union, the Rhodian states of Lindos, Kameiros, and Ialysos found the port of Rhodes as their capital city.

306 B.C.
Antigonus I, king of Macedonia, fails to persuade the Rhodians to ally with him against Ptolemy I of Egypt and sends his son Demetrius to besiege the city.

305 B.C.
Failing to achieve his objective, Demetrius negotiates an agreement with the Rhodians, and abandons his gigantic siege tower on the island.

294-282 B.C.
Chares of Lindos builds the Colossus, a huge statue of Helios, patron god of Rhodes, in thanks for protection during the Macedon siege.

Circa 225 B.C.
An earthquake destroys the Colossus. Despite an offer from Ptolemy III to rebuild, the Rhodians decide to leave it lying in pieces on the ground.

A.D. 77
Pliny completes his *Natural History*, one of the world's first scientific encyclopedias. A key source of information on the Colossus, it does not comment on its appearance or location.

A.D. 654
Umayyad Muslim forces raid Rhodes and plunder the fallen pieces of the Colossus. The bronze is sent to Syria and sold for scrap.

HARBOR OF RHODES
The Fort of St. Nicholas sits near the Mandraki (above), one of Rhodes's three harbors. It is easy to envision the great Colossus standing astride the harbor entrance with one foot on each side.

LUCA DA ROS/FOTOTECA 9X12

The Greek poet Antipater of Sidon, writing in the second century B.C., is often attributed with compiling the Seven Wonders of the Ancient World. These outstanding monuments and feats of engineering were referred to in Greek as *themata,* or things to be seen, similar to today's must-see lists in travel guides.

Earthquakes, fire, war, theft, and the relentless ruin of time, have left the world with just one of Antipater's recommendations, the Pyramids at Giza. Although the Pharos of Alexandria, the Statue of Zeus at Olympia, the Temple of Artemis at Ephesus, and the Mausoleum at Halicarnassus have fallen into ruin, archaeology and historical accounts provide some idea of their appearance. Not so with the Colossus.

Like the Hanging Gardens of Babylon (which some say never existed), the exact appearance of the Colossus that towered over the port of Rhodes is a mystery. Toppled by an earthquake around 225 B.C., the massive statue stood for a little more than 50 years. Historians have very little information as to what the structure looked

MERCHE HERNANDEZ

GOODS AND GODS

RHODES lies along the southeastern rim of the Aegean Islands. Its port, also named Rhodes, is located on the northern tip. At the time the Colossus was built, the port was an important stop on the trade routes linking Greek cities in Asia Minor—such as Miletus—with the wealth of Egypt, ruled by the Greek Ptolemies. In the third century b.c. Rhodes had close links with Alexandria, founded a century before by Alexander the Great. Associated with the Egyptian god Ra, Helios was also an important deity there.

like, where it stood, and how it was built. This vacuum has filled with much speculation and artistic license, but certain clues have helped researchers piece together credible theories about this marvelous structure.

Colossal Siege

Luckily for historians, why the Colossus was built is easily found in the historical record. First-century B.C. historian Diodorus Siculus recorded the fourth-century B.C. conflict known as the siege of Rhodes.

In 408 B.C. three city-states on the Mediterranean island of Rhodes (Lindos, Kameiros, and Ialysos) banded together to build a new federal capital and port. The city, also called Rhodes, grew prosperous through trade and built up strong commercial and diplomatic relationships with other Mediterranean powers.

At the end of the fourth century B.C. war broke out between two of Alexander the Great's successors: Ptolemy I, king of Egypt, and Macedonia's king Antigonus I (called Antigonus Cyclops for only having one eye). Formidable sailors and skilled diplomats, the Rhodians would not renounce their ties with the Egyptians. Antigonus did his utmost to persuade them to take his side, and when they refused, he decided to use force.

Antigonus sent his son Demetrius to subdue Rhodes in 305 B.C. After several failed attempts to capture the city, Demetrius ordered the construction of a Helepolis ("taker of cities"), a wheeled siege tower that may have stood more than 100 feet tall. Protected by metal plates and armed with catapults, this fearsome weapon failed to bring victory to Demetrius. Rhodes stood strong, and Demetrius withdrew after an unsuccessful, yearlong siege. Rhodes and Macedonia agreed that the Rhodians would back Antigonus against his enemies except Ptolemy. In exchange, they would remain politically and economically autonomous.

THE TAKER OF CITIES

Demetrius' mobile siege tower (below) is said to have stood nine stories tall and was designed to hurl projectiles into a besieged city.

AKG/ALBUM

SIZE MATTERS

CHARES OF LINDOS was the sculptor tasked with creating the Colossus, but all that survives of his work is his name. After the disappearance of the remains of the Colossus in the seventh century A.D., all trace of his work was lost. He was a pupil of Lysippus, one of the most famous artists in the Greek world, who created busts of Alexander the Great (right). Although Lysippus' original works have also all been lost, later replicas and works made by his disciples shed light on the type of education that his pupil might have received. Lysippus' bronze pieces are notable for their slenderness. By elongating the body, and slightly reducing the size of the head, the artist created a sensation of height, a trait seen in the replica of his "Praying Boy" (left).

DESPITE THE LACK of information on the appearance of Chares's Colossus, his rendering of the god Helios may well have adopted Lysippus' methods to produce a tall, slender structure rather than a hulking, muscular figure. Chares was used to working on a large scale: Pliny the Elder notes he made a very large head that could be seen on the Capitoline Hill in Rome. A later story, however, told by the second- or third-century philosopher Sextus Empiricus, claims Chares made a grave error in calculating the price of the material required to build the Colossus, a mistake that prompted him to take his own life. The tale, like so many surrounding the giant statue, is probably a myth:

And when [Chares] had named a sum, they asked again how much it would be if they wished to construct it twice that size. And when he asked double the sum, they gave it to him; but he, when he had spent the sum given on the first stages of the work and the preliminary expenses, slew himself. And when he was dead the craftsmen became aware that he ought to have asked not double but eight times the sum.

▲ **"ALEXANDER THE GREAT,"** ROMAN COPY OF A FOURTH-CENTURY B.C. BUST BY LYSIPPUS
GRANGER/ALBUM

◀ **"PRAYING BOY,"** SCHOOL OF LYSIPPUS, FOURTH CENTURY B.C., BERLIN STATE MUSEUMS
AKG-IMAGES/ALBUM

GUARDING THE HARBOR
After visiting the island of Rhodes, artist Antonio Muñoz Degrain imagined the Colossus in this oil painting from 1914. San Fernando Royal Academy of Fine Art, Madrid

ORONOZ/ALBUM

Colossal Rise

In gratitude for withstanding the siege, the inhabitants of Rhodes decided to build an extraordinary statue in honor of Helios. In Greek mythology, Helios was one of the Titans, the gods who ruled over Greece before the Olympians. Lord of the sun, Helios drove his chariot across the sky each day. The island of Rhodes was sacred to him, and he its patron deity.

To build the massive statue, Rhodes needed bronze, and a lot of it. A treatise entitled *On the Seven Wonders of the World,* attributed to second-century B.C. engineer Philo of Byzantium, explains that the statue required 12 to 13 tons of bronze, "an operation that involved the bronze industry of the entire world." Sources say that some bronze was scavenged from the abandoned Helepolis, and the rest was purchased with money raised by selling the weapons and armor left behind by Demetrius.

Chares of Lindos, a Rhodian sculptor, was commissioned to construct the monument. Respected across the Greek world, he was a pupil of the famous sculptor Lysippus, a favorite artist of Alexander the Great. As an offering to Rhodes's most important divinity, the new statue had to measure up to what it represented—the Rhodians' victory and the god who made it possible. Chares may have conceived his commission with a great statue of Zeus in mind: Sculpted by Phidias for the temple of Zeus at Olympia, this statue was massive, described as being seven times larger than life.

Working from 294 to 282 B.C., Chares took 12 years to erect the Colossus. Many questions remain as to what exact methods he employed to build it. Philo's treatise proposes that it was cast in a customized way, different from most statues: It was built in situ, piece by piece. Work began at the bottom, and the feet were put in place first. Philo wrote: "The artist heaped up a huge mound of earth round each section as soon as it was completed, thus burying the finished work under the accumulated earth, and carrying out the casting of the next part on the level." Then the statue rose like a building as each new section was attached to the one beneath it. However, Philo was writing more than 100 years

PAPER OF RECORD

Written more than two centuries after the Colossus fell, Pliny the Elder's *Natural History* is a significant source of information on the giant statue. A 16th-century edition (below) bears lavish illustrations.

SCIENCE SOURCE/ALBUM

MODEL FIGURE

A detail from a fifth-century B.C. vase shows craftsmen making a model for a statue. Models were often constructed as part of creating a large bronze sculpture.

PETER CONNOLLY/AKG/ALBUM

after the Colossus had been built. Modern art historians do not know what sources he relied on to gather his information, and many dispute the methodology described in his text.

The principal ancient source for the Colossus' dimensions is Pliny the Elder's first-century A.D. work, *Natural History*. Writing some 200 years after the Colossus was built, Pliny stokes the sense of wonder that had caused the Colossus to be included in the list of themata: "That [large statue] which is by far the most worthy of our admiration, is the colossal statue of the Sun, which stood formerly at Rhodes, and was the work of Chares the Lindian." Pliny's account puts the statue at "70 cubits"—around 108 to 110 feet (the exact dimensions of Greek cubits varied somewhat from place to place).

The statue was so big that in Pliny's words, "Few men can clasp the thumb in their arms, and its fingers are larger than most statues." Strabo, a near contemporary of Pliny's, also wrote of the structure in his *Geography*. Despite marveling at its size, however, neither source describes what it looked like and where exactly it stood in the port city, omissions that have frustrated historians ever since.

What is indisputable is that the Colossus was magnificent. An excerpt from a poem of the time testifies, "To you, o Sun, the people of Dorian Rhodes set up this bronze statue reaching to Olympus, when they had pacified the waves of war and crowned their city with the spoils taken from the enemy."

Colossal Fall

The Colossus, Chares's audacious "second sun," was not destined to last for centuries: An earthquake destroyed it and parts of the city of Rhodes

CASTING DOUBT

During the third millennium B.C., the advantages of using bronze in sculpture became evident and gave rise to a long tradition of Greek bronze sculpture. An alloy made of 90 percent copper and 10 percent tin, bronze was easier to cast and stronger than pure copper. Early Greek bronze statues were simple designs made by separately hammering sheets of the metal into shape and riveting them to one another. By the fifth century B.C. lost wax casting had become the favored method. Bronzesmiths, like those depicted on this fifth-century B.C. vase (left), often employed differing techniques depending on the type of sculpture. Judging from the six casting pits that have been found in Rhodes, the island was an important center for bronze working in the ancient world. Even so, art historians still do not have a conclusive answer as to how the massive Colossus was cast or assembled.

PETER CONNOLLY/AKG/ALBUM

in 226 or 225 B.C., little more than half a century later. Most sources agree that when the statue fractured, it broke at the knees.

Although Ptolemy III Euergetes of Egypt offered funds and labor to rebuild it, Strabo tells us the Rhodians did not dare to do so as an oracle advised them against it, so the pieces were left where they fell. Ptolemy's interest in the Colossus reveals the close links between Rhodes and Egypt, and the awe with which the figure of Helios was regarded in the region. Ptolemy III even represented himself as Helios on a coin, wearing a crown denoting rays of the sun.

Lying on the ground, the vast remains of this giant were admired for centuries. Even as the Colossus lay shattered, Pliny the Elder noted that it was still a "marvel." Its dismantled state allowed spectators to peer inside, where "are to be seen large masses of rock, by the weight of which the artist steadied it while erecting it." In the second century A.D. Lucian of Samosata joked that the Colossus of Rhodes, just like the Pharos of Alexandria, could be seen from the moon.

Time eventually ran out for travelers wishing to admire what remained of the great figure of Helios, even in its fallen state. By the middle of the seventh century, the Umayyad Muslims captured much of the eastern Mediterranean. When their general and future caliph, Muawiyah, conquered Rhodes in A.D. 654, he completed the demolition of the structure. His forces collected the bronze and sent it to Syria, where it was purchased by a scrap merchant. According to Byzantine sources, more than 900 camels were needed to carry it all away.

Colossal Legacy

The Colossus was gone, but its fame lived on in memory. Where history lacked details, imagination filled them in. By the Renaissance, a new belief arose that the Colossus had straddled the port of Rhodes, as a gateway for ships, with each of its massive legs planted on the quays at the harbor entrance.

PHARAOH OF THE SUN

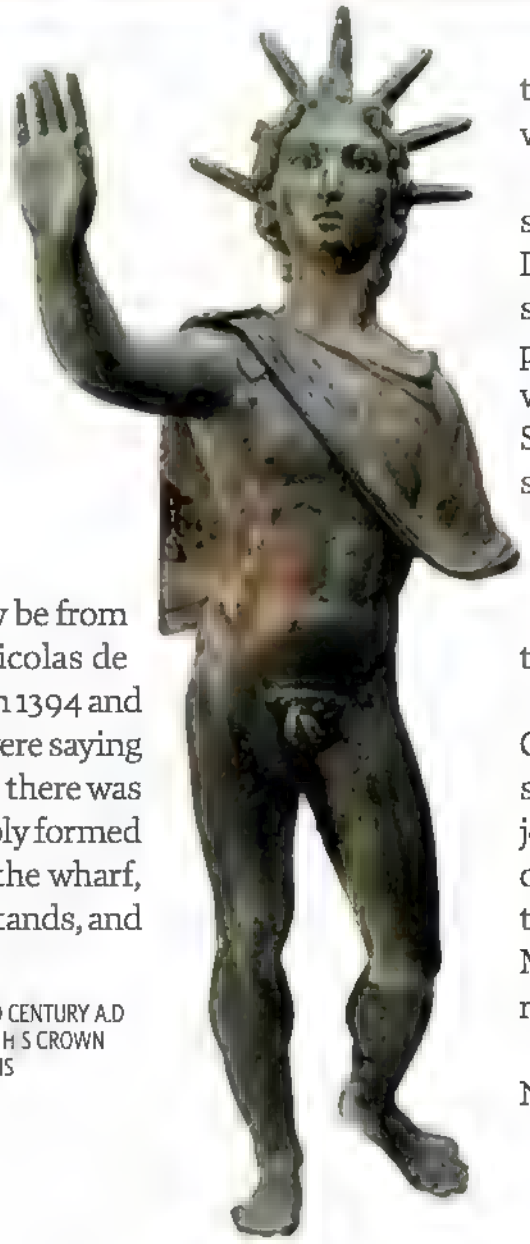
A gold coin (below) depicts the third-century B.C. king of Egypt Ptolemy III Euergetes, with a crown, in honor of Helios. Bibliothèque National, Paris

DEA/ALBUM

The image was turned into a literary metaphor in William Shakespeare's *Julius Caesar,* written in 1599. The conspirator Cassius uses the Colossus to express his feelings against Caesar:

Why, man, he doth bestride
the narrow world
Like a Colossus, and we petty men
Walk under his huge legs . . .

One source of this enduring idea may be from the account of an Italian pilgrim, Nicolas de Martoni, who visited Rhodes between 1394 and 1395. He recorded what local people were saying about the Colossus: "In ancient times, there was a great wonder, a great idol, so admirably formed that it is said that it had one foot on the wharf, where the Church of Saint Nicholas stands, and the other on the end of the other wharf, where the windmills are."



THIS ROMAN BRONZE FIGURE FROM THE SECOND OR THIRD CENTURY A.D PORTRAYS HELIOS WITH ARM RAISED, SPORTING A CAPE AND HIS CROWN DEPICTING THE AUREOLE OF THE SUN. LOUVRE MUSEUM, PARIS
J.EWANDOWSKI/RMN-GRAND PALAIS

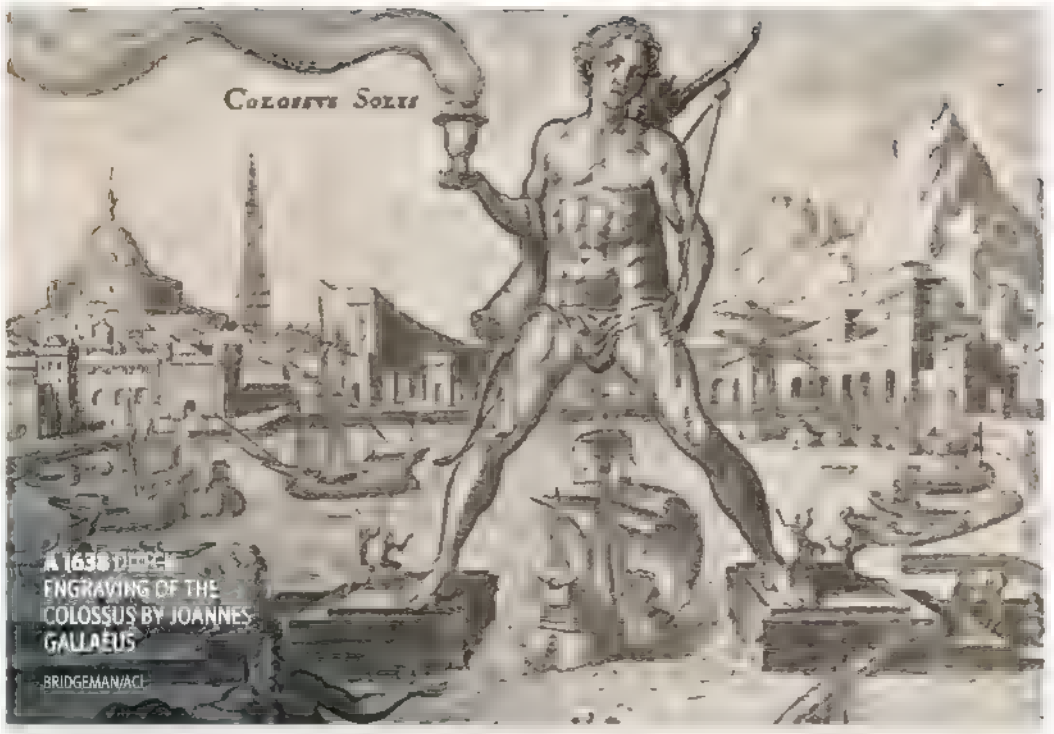
Historians now regard the idea that the Colossus stood with its legs apart as highly unlikely. It would have been physically impossible for a statue standing at least 100 feet high to be supported by legs 650 feet apart. The sculpture itself would have been too heavy for the legs to support. Scholars also point out that a wide-legged Colossus could not have withstood the strong winds of the region. The fact that many sources attest that when the earthquake struck, the Colossus broke at the knees leads art historians to believe that its legs must have been together.

The name Colossus provides a clue as well. Originally the word did not refer to height or size—the meaning of a large statue, or the adjective colossal, are derived from the Colossus of Rhodes itself. The word was appropriated by the Greeks from the indigenous peoples of Asia Minor and referred to a special type of sculpture, none of which stood with their legs apart.

So what might the Colossus have looked like? No coins were minted with a complete rendering

WONDER ON THE HORIZON Approaching Rhodes, the Colossus—here depicted with legs parted—would have been visible from afar, a scene imagined by Gualtiero Padovano in this 16th-century fresco. Villa Godi Malinverni, Lugo di Vicenza

MARCO COVI/ELECTA/ALBUM



A 1638 DUTCH ENGRAVING OF THE COLOSSUS BY JOANNES GALLAEUS

BRIDGEMAN/ACI

A LEGEND WITH LEGS

BY THE LATE 1500S spectacular but entirely erroneous ideas about the Colossus were incorporated into artistic depictions. The image of a torch-bearing figure with its legs apart was popularized further by Dutch engravings, such as the one above, that show a ship in full sail passing beneath. These engravings reached a wide audience to become part of the iconography of this wonder of the ancient world, until it was debunked by historians in the 19th century.

of it, despite the Colossus being a symbol of Rhodes's pride in maintaining its independence. Using known depictions of Helios as a starting point, art historians believe the Colossus was probably a figure of a nude male with rays of light emanating from his head, a frequent attribute of the sun god.

Some depictions show the Colossus holding a torch, but historians believe it probably did not carry one. It has been impossible to establish what position the arms were in, whether they pointed straight downward or whether the right arm was raised as the sun god is represented in Roman statues in subsequent periods.

Most artistic representations of the statue place it at the mouth of the port, as a landmark for shipping. It is now considered unlikely to have been sited beside the sea or in the port area, however, partly due to the lack of a site big enough to accommodate it. While it is plausible that the Colossus would have been built beside a temple dedicated to Helios, no remains of a temple or an open-air sanctuary to the god have been found on the island.

Some archaeologists suggest that a sanctuary of unknown identity built near the stadium in the Acropolis at Rhodes was, in fact, dedicated to Helios. This explanation seems logical: The stadium was where athletes from all of Greece competed during the Halieia, the festival in honor of the sun god. In this case, the statue could have been cast in a nearby pit, and then raised near the spot.

The Colossus did not remain standing for long, but its legacy—even if based on misinformation—has endured, and left a deep imprint on the modern period. Its association with freedom, a torch, and a crown with solar rays, were important factors in the design of the Statue of Liberty. Its most recent contribution to visual culture is as inspiration for the giant bronze Titan statue that stands guard in the port of Braavos in George R. R. Martin's best-selling *A Song of Ice and Fire* novels, the basis for the hit television series *Game of Thrones*.

CLASSICIST **ROSA MARÍA MARIÑO SÁNCHEZ-ELVIRA** HAS WRITTEN EXTENSIVELY ON GREEK HISTORY. HER TRANSLATIONS INCLUDE THE *REPUBLIC* OF PLATO.

Rome's Vestal Virgins

KEEPERS OF THE FLAME

Chosen as young girls, the priestesses of Vesta, goddess of the hearth, swore a 30-year vow of chastity and in turn were granted rights, privileges, and power unavailable to other women in Rome.

ELDA BIGGI

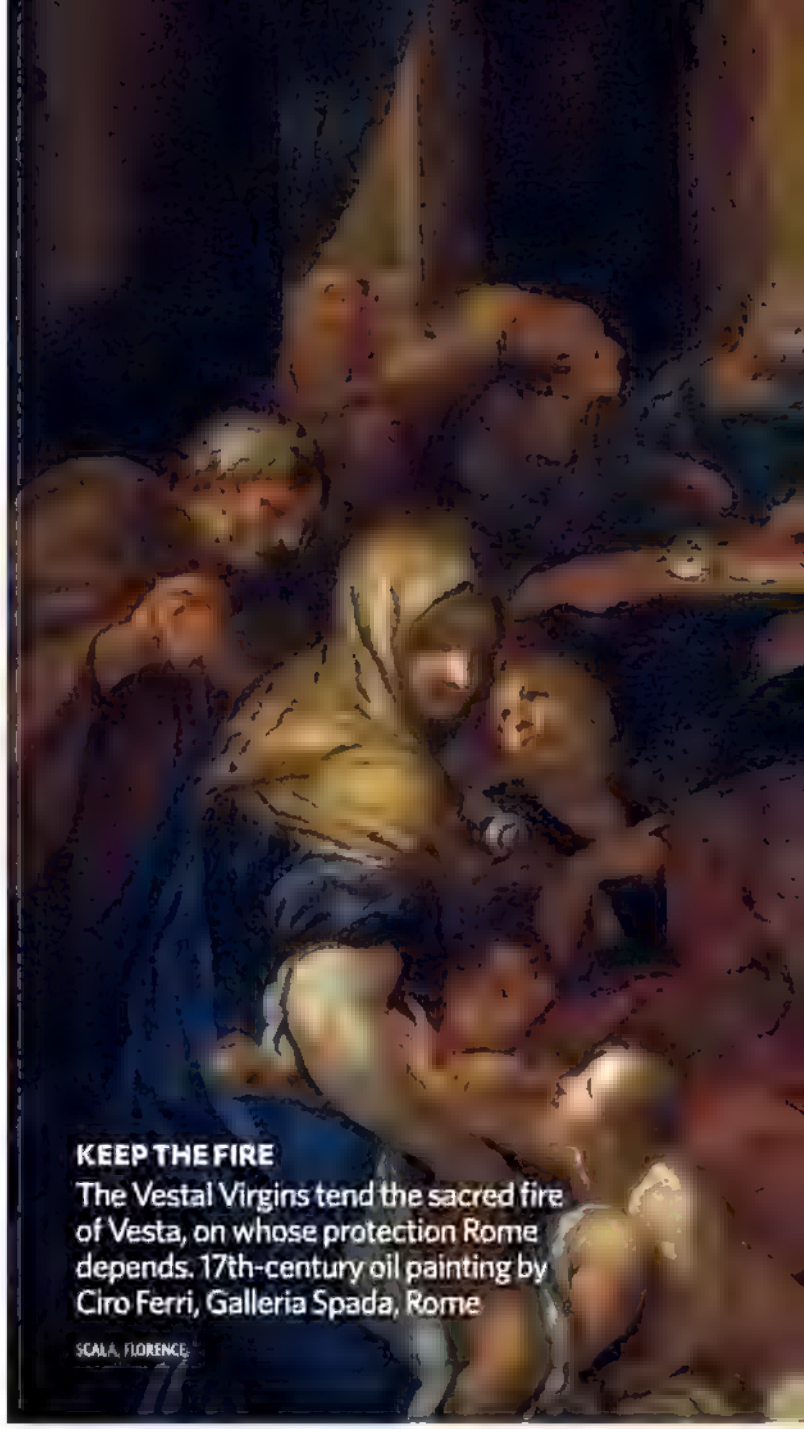
HIGHEST PRIESTESS
A second-century B.C. statue shows the distinctive dress of a Vestalis Maxima, chief of the Vestal Virgins. Below left: A silver denarius, also from the second century B.C., bears a representation of the circular Temple of Vesta.

BUST: DEA/ALBUM
COIN: DEA/SCALA, FLORENCE

FIRE GODDESS

The remains of the Temple of Vesta (above) stand in the Roman Forum. Unlike most temples, it did not contain a central image of the goddess. It was the site of the holy fire and a repository of various sacred artifacts.

PETER UNGER/GETTY IMAGES



KEEP THE FIRE
The Vestal Virgins tend the sacred fire of Vesta, on whose protection Rome depends. 17th-century oil painting by Ciro Ferri, Galleria Spada, Rome

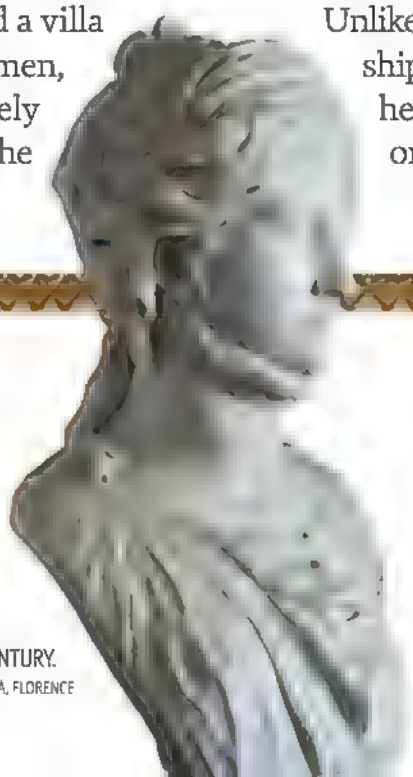
SCALA, FLORENCE

Marcus Licinius Crassus was one of the richest and most powerful Roman citizens in the first century B.C. Yet he nearly lost it all, his life included, when he was accused of being too intimate with Licinia, a Vestal Virgin. He was brought to trial, where his true motives emerged. As the first-century historian Plutarch recounts, Licinia was the owner of "a pleasant villa in the suburbs which Crassus wished to get at a low price, and it was for this reason that he was forever hovering about the woman and paying his court to her." When it became clear that Crassus' wooing was motivated by avarice rather than lust, he was acquitted, saving both his and Licinia's lives.

One of the most remarkable elements of this story is the fact that Licinia owned a villa in the first place. Unlike other women, Licinia could own property precisely because she was a Vestal Virgin. The story of her trial also reveals how that privilege came with a price: A Vestal Virgin had to abstain from sex, a sacred obligation to one of Rome's most ancient customs that would continue until Christianity ended the cult in A.D. 394.

Vestal Veneration

According to Roman authors, the cult was founded by Numa Pompilius, a semi-mythical Roman king who ruled around 715 to 673 B.C. Unlike most Roman religious cults, worship of Vesta was run by women. The hearth was sacred to this goddess, one of Rome's three major virgin



8TH CENTURY B.C.

Classical sources attribute the creation of the Vestal cult to the ancient Roman king **Numa Pompilius.** Young girls chosen as future priestesses had to leave their families to live in the temple of Vesta.

65 B.C.

The selection process allows the **Pontifex Maximus** to choose a pool of 20 candidates, from which public lots would be drawn to determine the six girls who will join the temple.

NEOCLASSICAL BUST OF A VESTAL VIRGIN, 18TH CENTURY. STOURHEAD HOUSE, WILTSHIRE, ENGLAND NTPL/SCALA, FLORENCE

TENDING ROME'S ETERNAL FLAME

goddesses (the other two being Minerva and Diana). The rites surrounding the Vestals remained relatively fixed from the time of the Roman Republic through the fourth century A.D.

Six virgin priestesses were dedicated to Vesta as full-time officiates who lived in their own residence, the Atrium Vestae in the Roman Forum. The Vestals' long tradition gave Romans a reassuring thread of continuity and may explain the Temple of Vesta's traditional circular form, a style associated with rustic huts in the city's deep past.

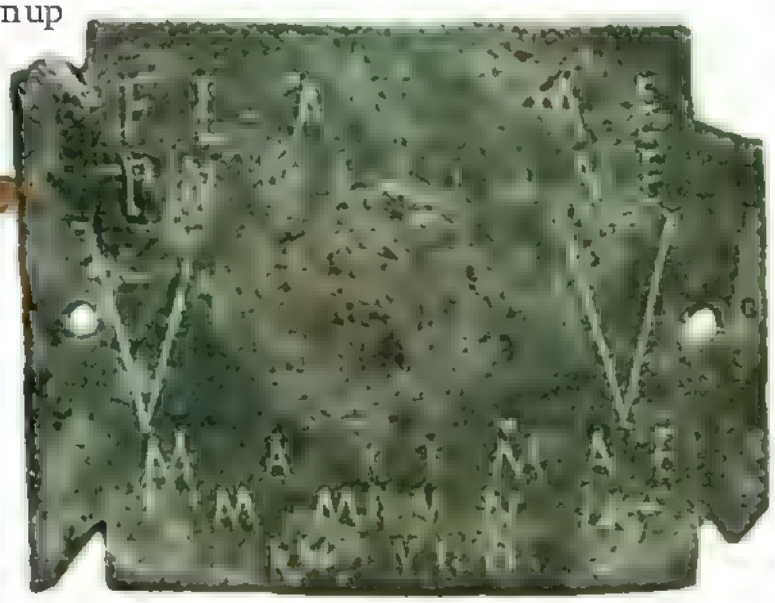
This place of worship, which lay alongside the Atrium, was where the priestesses tended the goddess's sacred fire. Once a year, in March, they relit the fire and then ensured it remained burning for the next year. Their task was serious as the fire was tied to the fortunes of their city, and neglect would bring disaster to Rome.

To become a Vestal was the luck of the draw. *Captio,* the process whereby the girls were selected to leave their families and become priestesses, is also the Latin word for "capture"—a telling turn of phrase that evokes the kidnapping of women for brides that took place in archaic Rome. Records from 65 B.C. show that a list of potential Vestals was drawn up by the Pontifex Maximus,

FAITH AND TAXES

A bronze plaque from circa A.D. 247 (below) registers the tax privileges enjoyed by Flavia Publicia, a Vestalis Maxima. Metropolitan Museum, New York

QUINTOX/ALBUM



A.D. 193-211

A fire damages the compound in which the Vestals live and worship, leading the wife of Emperor Septimius Severus, **Julia Domna,** to oversee a restoration of the Temple of Vesta, which will retain its iconic circular structure.

A.D. 394

Emperor **Theodosius I** bans all pagan rituals and cults. The Temple of Vesta is closed, the sacred fire extinguished—perhaps by the emperor himself—and the last Vestals are released from their service.

THE VESTALS AT HOME AND AT PRAYER

THE VESTAL VIRGINS lived in the Atrium Vestae in the Roman Forum. The illustration shows the Atrium as it looked following restoration under Emperor Septimius Severus in the early third century. Despite its grandeur, it was known for being dark and damp. In the center, ① a large patio was decorated with the statues of those who had held the honor of being Vestalis Maxima, the chief priestess of the cult. ② The *aedicula* was a small shrine supported by Ionic columns. Built under Hadrian in the early second century, it may have contained a statue of the goddess Vesta. ③ The Temple of Vesta was a circular structure (*a tholos*) of Corinthian columns, restored by the wife of Septimius Severus. Here, the priestesses tended the fire whose smoke rose from a central chimney. Its presence in the Forum was a reminder of the priestesses' vigil; the smoke it sent into the air was a reassurance that all was well with Rome.

LEFT: A REPRESENTATION OF A VESTAL V RGIN
BELOW: A RE-CREATION OF THE TEMPLE OF VESTA THAT ADJOINED THE ATRIUM VESTAE

PETER CONNOLLY/ALBUM

①
②
③

THE VESTAL TUCCIA, FALSELY ACCUSED OF BREAKING HER CHASTITY VOW, IS SAVED BY THE INTERVENTION OF VESTA, WHO ENABLES HER TO CARRY WATER IN A SIEVE FROM THE TIBER BACK TO THE TEMPLE. 17TH-CENTURY PAINTING BY GIOVANNI BATTISTA BEINASCHI

AKG/ALBUM

OFFERINGS TO THE GODDESS

A relief from the time of Augustus (below) found in the Villa Albani in Rome shows Vesta, seated, with four priestesses, offering a sacrifice at the altar. Museum of Roman Civilization, Rome

WHITE IMAGES/SCALA, FLORENCE

Rome's supreme religious authority. Candidates had to be girls between the ages of six and 10, born to patrician parents, and free from mental and physical defects. Final candidates were then publicly selected by lot. Once initiated, they were sworn to Vesta's service for 30 years.

On being selected, their life was spent at the Atrium Vestae in a surrogate family, presided over by older Vestals. In addition to room and board, they were entitled to their own bodyguard of lictors. For the first 10 years they were initiates, taught by the older priestesses. Then they became priestesses for a decade before taking on the mentoring duties of the initiates for the last 10 years of their service.

Public monies and donations to the order funded the cult and the priestesses. In Rome religion and government were tightly intertwined. The organization of the state closely mirrored that of the basic Roman institution: the family. The center of life of the Roman home, or *domus,* was the hearth, tended by the matriarch for the good of her family and husband. In the same way, the Vestals tended Vesta's flame for the good of the state.

Unlike other Roman women, Vestals enjoyed certain privileges: In addition to being able to own property and enjoying certain tax exemptions, Vestals were emancipated from their family's *patria potestas,* patriarchal power. They could make their own wills and give evidence in a court of law without being obliged to swear an oath.

Thirty Years of Chastity

These rights came at a high price: 30 years of enforced chastity. Many historians believe that the health of the state was tied to the virtue of its women; because the Vestals' purity was both highly visible and holy, penalties for a Vestal breaking her vow of chastity were draconian. As it was forbidden to shed a Vestal Virgin's blood, the method of execution was immuration: being bricked up in a chamber and left to starve to death. Punishment for her sexual partner was just as brutal: death by whipping. Throughout Roman history, instances are cited of these grim sentences being passed.

Jealousy or malice made the women vulnerable to false accusations. One story, celebrated by several Roman writers, concerns the miracle of the Vestal Virgin Tuccia, who was falsely accused of being unchaste. According to tradition, Tuccia beseeched Vesta for help and

RITES OF PASSAGE

TRAINING THE NOVICES

After lots were drawn from the list of young girls who could serve Vesta, initiates were brought to the Atrium Vestae, where their training would begin. The training was overseen by the chief priestess, the Vestalis Maxima, who came under the authority of the Pontifex Maximus. The first 10 years were spent training for their duties. They would spend the second decade actively administering rites, and the final 10 were spent training novices. The chastity of the priestesses was a reflection of the health of Rome itself. Although spilling a virgin's blood to kill her was a sin, this did not preclude the infliction of harsh corporal punishment. First-century historian Plutarch writes: "If these Vestals commit any minor fault, they are punishable by the high-priest only, who scourges the offender."

"THE SCHOOL OF THE VESTAL VIRGINS"
19TH-CENTURY COLORIZED ENGRAVING BY L. HECTOR LEROUX
RENFIELDS GARDEN/GETTY IMAGES
COLOR: SANTI PÉREZ

THE ROOTS OF THE VESTALS

A ROMAN TRADITION?

Romans believed the cult of the Vestal Virgins was instituted under the eighth-century B.C. king Numa Pompilius (right), the successor of Rome's founder, Romulus. First-century A.D. historian Plutarch wrote that Numa may have "considered the nature of fire to be pure and uncorrupted and so entrusted it to uncontaminated and undefiled bodies." Numa is credited by Livy, in his *History of Rome*, with formalizing other key Roman cults, including those of Jupiter and Mars. Many historians believe Numa was legendary, and that the worship of Vesta and other cults developed slowly out of pre-Roman customs, perhaps dating back to the older Etruscan culture that dominated Italy before the rise of Rome.

A BUST OF NUMA POMPILIUS FROM THE VILLA ALBANI MUSEUM IN ROME, BELIEVED TO HAVE BEEN SCULPTED IN THE ROMAN IMPERIAL PERIOD
ALINARI/GETTY IMAGES

VIEW OF VESTA

The ruins of the Atrium Vestae stand in the Roman Forum. The rectangular pools formed a part of the complex's long, central patio. To the right of the Atrium are the remains of the Temple of Vesta, and behind the wall are the three remaining columns of the Temple of Castor and Pollux.

MASSIMO RIPANI/FOTOTECA 9X17

THE GODDESS VESTA ATTENDED BY FOUR VEILED VESTAL VIRGINS IN A RELIEF FROM THE FIRST CENTURY A.D.
SCALA, FLORENCE

TROJAN CLAIM

A second-century coin (below) depicts Vesta enthroned, bearing the Vestals' sacred palladium—a statue of Pallas Athena supposedly brought to Rome from Troy by the hero Aeneas.
AKG/ALBUM

miraculously proved her innocence by carrying a sieve full of water from the Tiber.

Allegations of crimes against the Vestals' chastity sometimes went to the top of the social order. The flamboyantly eccentric, third-century emperor Elagabalus actually married a serving Vestal Virgin. It is a sign of the enduring symbolic importance of the cult that this heresy was one major factor that led to his deposal and murder.

Vestal Vestments

The ceremonial dress of Vestals highlights their dual, and somewhat contradictory, embodiment of both the maternal and the chaste. Physical appearance was an integral part of their role, making them stand out as different from other women, but also echoing physical traits of conventional women.

Dressed in white, the color of purity, the Vestal Virgins wore *stola,* long gowns worn by Roman matrons. Hair and headdresses played an important symbolic function. The Vestal hairstyle is described in Roman sources using an ancient Latin phrase, the *seni crines.* Historians cautiously agree it means "six braids," and is mentioned as the coiffure of both Vestal Virgins and brides. A Vestal wore the *suffibulum,* a short, white cloth similar to a bride's veil, kept in place with a brooch, the *fibula.* Around their heads they wore a headband, the *infula,* which was associated with Roman matrons.

Daily rites for Vestals were often centered around the temple. Most important was maintaining the holy fire. If the fire went out, the attending Vestals would be suspected not only of neglect but also of licentiousness, since it was believed impurity in a Vestal's relations would cause a fire to go out. Other typical duties included the purification of the temple with water, which had to be drawn from a running stream. In readiness for the numerous festivals that required their attendance, the priestesses were required to bake *salsa mola,* a cake of meal and salt that was sprinkled on the horns of sacrificed animals. Important religious festivals included

PLIGHT OF OLDER VESTALS

LIFE BEGINS AT 40?

Now in her 40s, a newly released Vestal could owe her survival, in part, to not having to undergo the dangerous experience of childbirth, and could look forward to a new life. After 30 years of service to the goddess, Vestal Virgins could, in theory, be free to leave the order, do as they wished, and even marry. In practice, it seems, exercising their newly found freedom was challenging. Material need was not a concern: a Vestal nearing the end of her service would have led the life of an aristocratic woman at the expense of the state and would enjoy a good pension. The problem seemed to be in adapting to life outside the temple. So many years spent in the confines of a regulated, all-female environment would make the outside world feel, at best, strange, and, at worst, hostile. Rich and unattached, Vestal Virgins could be targeted by mercenary men. The actions of Marcus Licinius Crassus were controversial because he courted a still serving Vestal Virgin. But there are other examples of men pursuing retired priestesses—which was perfectly legal—in order to make away with their wealth and savings. The legal status of Vestal Virgins placed them in a strange position in Roman society. Release from patriarchal control could leave women defenseless and without family in what was still a patriarchal society. The Roman orator Cicero cited the case of an official charged with corruption. His sister, a Vestal Virgin, called for her position to be taken into account, and for the court to show mercy to him:

What other security, what solace, is left to this poor woman if he is lost? Whereas other women can bear children as their security and have an ally and partner in their own household, what does this virgin have, however, besides her brother that could be either pleasant or dear to her?

the Vestalia, dedicated to their goddess, Vesta, and the Lupercalia, which highlights the contradictory role of the Vestal Virgins, as it was closely associated with fertility.

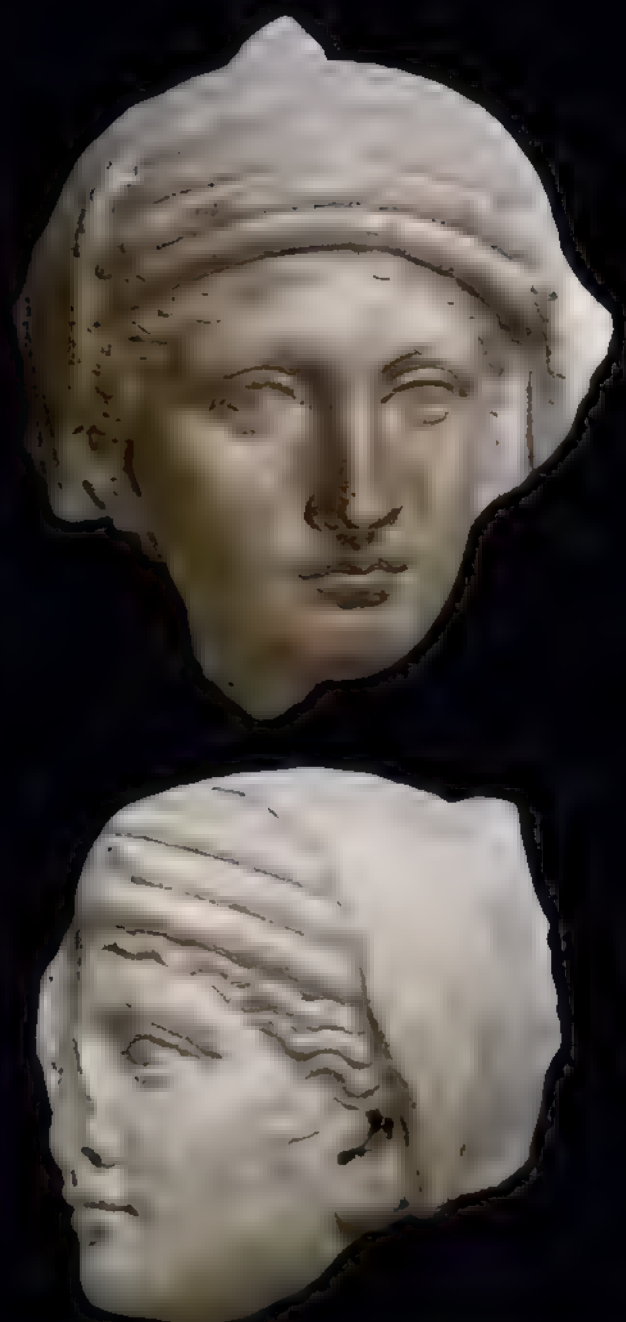
In the innermost part of their temple, the priestesses looked after their secret talismans. Among these objects was the sacred phallus, the *fascinus,* the representation of a minor god of the same name. The fascinus (the root of the word "fascinate") is closely bound with magic and fertility. It was also in this part of the temple that they probably kept the palladium, the statue of Pallas Athena that the legendary founder of Rome, Aeneas, brought to Italy after the destruction of Troy, his home city—another aspect of the Vestal cult that tied Rome's origins into an ennobling and ancient tradition.

Romans regarded these priestesses with a sense of awe. Plutarch points out "they were also keepers of other divine secrets, concealed from all but themselves." It was believed they possessed magical powers: If anybody condemned to death saw a Vestal on his way to being executed, he was to be freed, so long as it could be proven the meeting was not by design. Vestals, it was said, could stop a runaway slave in his tracks.

The privileged position of the Vestal Virgins in Roman society survived for more than a thousand years, passing through Rome's changing systems of monarchy, republic, and empire. The cult would not, however, survive Christianity. In A.D. 394 Theodosius closed the House of the Vestals forever, freeing the virgins from their obligations, but also removing their privileges.

Even as their flame was extinguished, aspects of the cult may have passed into the new faith as it swept through the Mediterranean. Just as the position of the Pontifex Maximus lived on in the papal title "pontiff," young women in the early years of Roman Christianity embraced virginity and celibacy in their desire to be "eunuchs for the love of heaven." Scholars believe the role of the Christian nun was inspired, in part, by the chaste figures who dutifully tended the holy flame of Vesta.

ITALIAN AUTHOR AND HISTORIAN ELDA BIGGI IS A SPECIALIST ON THE CONDITION OF WOMEN IN THE ROMAN WORLD.



BRIDES AND MATRONS

Each sculpted head of two Vestal Virgins (above), of unknown date, wears the distinctive *suffibulum* headdress, similar to a bridal veil. Around their foreheads, each wears the *infula.* Antiquarium of the Palatine, Rome

SCALA, FLORENCE

THE HIGH PRICE OF BREAKING

A Vestal Virgin found guilty of *incestum,* being impure, was immured, walled

OPPIA, A VESTAL VIRGIN IMMURED AND LEFT TO STARVE. 19TH-CENTURY COLORIZED ENGRAVING
MARY EVANS/SCALA, FLORENCE. COLOR: SANTI PÉREZ

OPPIA (483 B.C.)

Dionysius of Halicarnassus, in his *Roman Antiquities*, narrates the punishment wrought upon the Vestal Oppia for having offended the gods: "The augurs and interpreters of religious matters declared, after pooling their experiences, that some of the gods were angered because they were not receiving their customary honors, as their rites were not being performed in a pure and holy manner. Thereupon strict inquiry was made by everyone, and at last information was given to the pontiffs that one of the virgins who guarded the sacred fire, Oppia by name, has lost her virginity and was polluting the holy rites. The pontiffs, having by tortures and other proofs found that the information was true . . . solemnly conducted her through the Forum, and buried her alive inside the city walls . . . Thereupon the sacrifices and auguries became favorable, as if the gods had given up their anger."

VESTALS ON TRIAL

472 B.C.
According to first-century B.C. historian Dionysius of Halicarnassus, Urbinia is accused of *incestum* with two lovers. She is flogged and buried alive. One of her lovers commits suicide while the other is scourged to death.

271 B.C.
Caparronia is found guilty of incestum, but she hangs herself before the dreaded immurement can be carried out. According to fifth-century historian Orosius, her lover is executed.

216 B.C.
First-century historian Livy wrote that Opimia and Floronia are the cause of Rome's military defeat by Hannibal. They are found guilty of immorality, but Floronia kills herself before she can be immured.

SACRED VOWS

up alive in an underground chamber and left to die alone in the dark.

MINUCIA, BROUGHT TO THE CHAMBER WHERE SHE WILL BE ENTOMBED. COLORIZED ENGRAVING
MARY EVANS/SCALA, FLORENCE. COLOR: SANTI PEREZ

MINUCIA (337 B.C.)

Titus Livy, in his *History of Rome*, documents the case of another Vestal Virgin who was punished by being walled up alive. She was called Minucia and was accused of dressing immodestly and leading an extravagant lifestyle. Livy writes: "In that year the Vestal Minucia, suspected in the first instance because of her dress, which was more ornate than became her station, was subsequently accused before the pontiffs on the testimony of a slave, and having been by their decree commanded to keep aloof from the sacred rites and to retain her slaves in her own power, was convicted and buried alive near the Colline Gate, to the right of the paved road in the Polluted Field—so called, I believe, on account of her unchastity."

70s B.C.

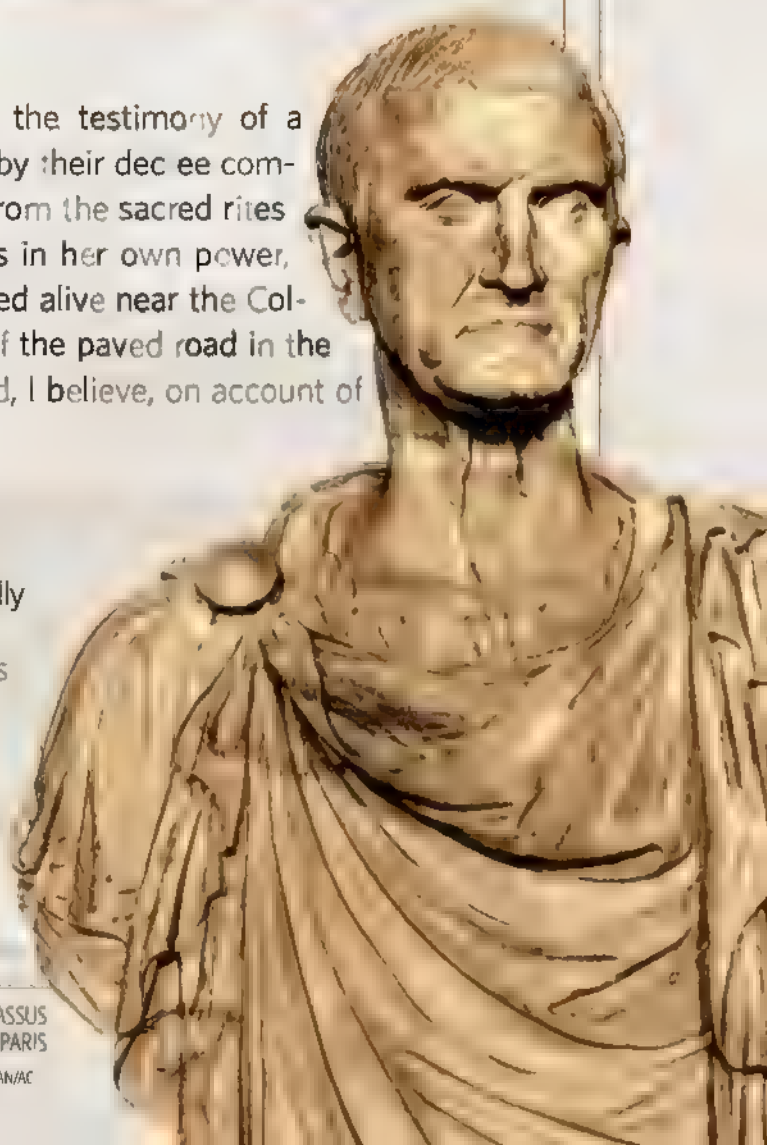
Marcus Licinius Crassus is acquitted of incestum with Licinia when it is shown that he, who is known for his greed, only wanted her property—which, Plutarch writes, he then acquired.

A.D. 83

According to Suetonius, following a period marked by tolerance of Vestal laxity, the emperor Domitian orders the execution of three Vestals, but he lets two choose the manner of their own death.

A.D. 220

Aquilia Severa is allegedly raped by Emperor Elagabalus, who marries her in order to sire children "fit for a god." He is murdered two years later.



BUST OF MARCUS LICINIUS CRASSUS
LOUVRE MUSEUM, PARIS
BRIDGEMAN/AC

MICHELANGELO'S MASTERPIECE

THE SISTINE CHAPEL

WHEN AWARDED THE COMMISSION TO PAINT THE SISTINE CHAPEL, MICHELANGELO WAS DOUBTED BY CRITICS. SILENCING THEM, HIS BEAUTIFUL BRUSHSTROKES CAME TO EMBODY THE PEAK OF RENAISSANCE ART.

LAURA FEDI

Michelangelo di Lodovico Buonarroti Simoni was better known as a sculptor when Pope Julius II tapped him to illuminate the Sistine Chapel. Known to the world as Michelangelo, the Florentine was just 24 when he sculpted his renowned "Pietà," a tender depiction of the Virgin Mary cradling the lifeless body of her son. His towering "David" revealed his mastery of sculpting the human form. For all the skill and beauty of his work with a chisel, it is perhaps his work with a brush for which he is remembered most of all. The bold colors and striking composition of his frescoes in the Sistine Chapel still awe viewers with their power and emotion. The Sistine ceiling and the "Last Judgment" stand as a testament to Michelangelo's genius as a painter and evolution as an artist.

INSIDE LOOK

The cupola of St. Peter's Basilica (left), designed by Michelangelo, was uncompleted at his death. Next to it, the Sistine Chapel seems unremarkable—at least from the outside. Opposite, the impressive Sistine interior, looking toward the "Last Judgment."

EXTERIOR: GIOVANNI S MEONE, FOTOTECA 9X12
INTERIOR: ARCHIVIO FOTOGRAF CO MUSE VATICAN

The Sistine ceiling was completed in 1512, a little before the Protestant Reformation. On the west wall, the "Last Judgment" fresco was unveiled nearly three decades later, as the effects of Martin Luther's revolution spread across Europe. Both works reflect the spirit and themes of the times: the Renaissance love of the human body; the tension between wealth and faith; and, above all, an explosively vibrant rendering of the great stories of the Bible.

Summons by the Pope

In 1503 a new pope was appointed: the very worldly Pope Julius II, a self-declared lover of power, war, and art. Under his rule, Rome came to resemble a magnificent salon with a host of artists and architects at work on different projects. The precocity of the young Michelangelo—who, at Julius's accession was sculpting the astonishing 17-foot-high "David" in Florence—reached the ears of the pontiff. In 1505 Julius summoned him to Rome to work on his future tomb, a commission that soon extended into a remodeling of St. Peter's Basilica itself.

The papal tomb, which Michelangelo biographer Andrew Graham-Dixon has called "a megalomaniac fantasy, an obscene monument to ego, pride, and power," was nonetheless a plum commission. After a run-in with the pope over nonpayment for materials, however, Michelangelo

LIFE OF AN ARTIST

1475

MICHELANGELO is born in Caprese, the Republic of Florence, to a family of minor nobility. He will be apprenticed at age 13 to the studio of Domenico Ghirlandajo, Florence's most eminent painter.

1499

MICHELANGELO'S "Pietà" is unveiled in St. Peter's Basilica. One of the most moving and accomplished works of the Renaissance, the sculpture raises Michelangelo's profile. He is just 24.

1508

DESPITE his inexperience as a painter, Michelangelo is commissioned to paint frescoes on the ceiling of the Vatican's Sistine Chapel, a monumental task he will complete in 1512.

1536

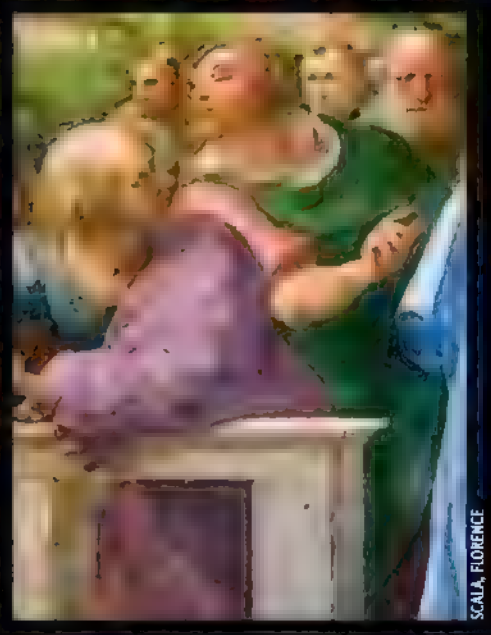
MICHELANGELO is commanded to paint a fresco of the Last Judgment in the Sistine Chapel. He will complete it in 1541, but his use of nudity will offend increasingly orthodox elements in the Church.

1564

MICHELANGELO dies in Rome after a life devoted to sculpture, painting, and architecture. In the years following his death, his critics will move to have some of the nude Sistine figures censored.

A RIVAL'S PLAN

MICHELANGELO WROTE: "All the discords that arose between Pope Julius and me were owing to the envy of Bramante [Pope Julius's chief architect] and of [the painter] Raphael." Did these rival artists suggest to the pope that Michelangelo was not up to the job? Ascanio Condivi, Michelangelo's first biographer, had a different theory: It was Bramante himself who put forward Michelangelo's name. He did so, however, out of spite, calculating that when his younger rival began to paint the ceiling, his lack of expertise would become clear and his career in Rome would be finished. Giorgio Vasari, in his *Lives of the Most Excellent Painters, Sculptors, and Architects,* also follows this argument. Michelangelo himself was dubious of his abilities as a painter, so the theory may not be far-fetched. History has shown, however, that Bramante's tactic spectacularly backfired.



SCALA, FLORENCE

DETAIL FROM AN OIL PAINTING BY RAPHAEL SHOWING THE DISPUTE BETWEEN BRAMANTE AND POPE JULIUS II. THE RAPHAEL ROOMS, VATICAN, ROME

left Rome in disgust. Julius, realizing his mistake, insisted that the artist continue working for him and ordered him back to work on an enticing new project: the frescoes on the ceiling of the Sistine Chapel.

When Michelangelo returned to Rome in 1508, Donato Bramante, the pope's chief architect, and a sworn enemy of Michelangelo, was busy working on the new Basilica of St. Peter. In 1546, when he was an old man, Michelangelo would be appointed chief architect of the new St. Peter's—which was finally completed in 1615—but this lay far in the future. Raphael, another rival, was starting work on frescoes in the pope's private chambers, and next to such grand projects, the Sistine Chapel, with its plain exterior, might have seemed a lesser project.

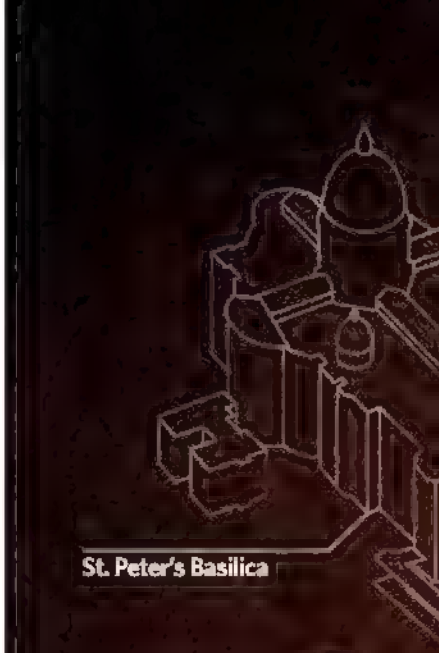
Its outer appearance was deceptive, for it was a special building inside: Restored a few decades before by Pope Sixtus IV (for whom it is named) it was the place of worship for the Papal Chapel, the part of the Vatican dedicated to assisting the pontiff in his spiritual functions. Today it is the setting of the conclave, where the cardinals choose a new pope. Pope Julius was adamant that he wanted only one artist to complete its decoration, and despite their previous altercation, he gave Michelangelo the job.

A Moment of Doubt

Bramante was quick to complain how lacking in experience Michelangelo was for such an extraordinarily challenging project. He had a point: Michelangelo had learned the craft of mural painting in the studio of Domenico Ghirlandajo in Florence, where he was an apprentice at age 13. But he had never really worked as a painter, having moved instead into sculpting for the Medici family at age 15. He was commissioned

Bramante, chief architect of St. Peter's, complained that Michelangelo lacked painting experience.

OBVERSE OF A MEDAL COMMEMORATING THE CONSTRUCTION OF ST. PETER'S BASILICA. BRITISH MUSEUM, LONDON
SCALA, FLORENCE



1

SCALA, FLORENCE

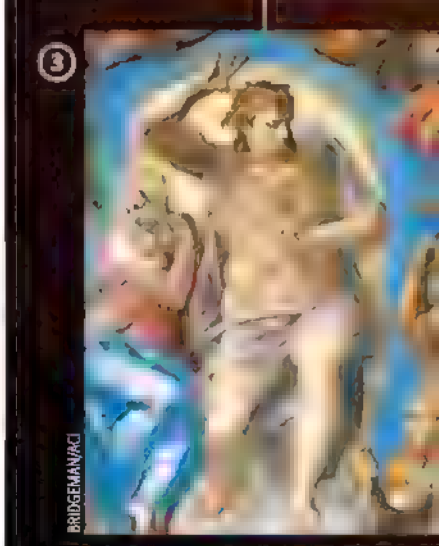
Journey of Moses to Egypt
by Pietro Perugino

2

RODRIGO SILVA/EL PAÍS

Trompe l'oeil curtains

3



BRIDGEMAN/ACI

ART IN THE CHAPEL

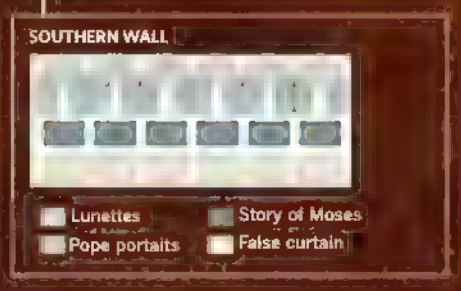
Following the reconstruction of the papal chapel by Sixtus IV between 1477 and 1480, various artists were commissioned to paint its walls. Michelangelo's work, on the ceiling and altar wall, is the most acclaimed.

A CEILING

Michelangelo's ceiling (1508-1512) includes nine panels (all stories from Genesis) surrounded by 12 figures of prophets, sibyls, and ancestors of Jesus. In the four pendentives appear episodes from the salvation by God of ancient Israel.

D SOUTH WALL

The south and north walls were painted in the 1480s by Perugino, Botticelli, Rosselli, and Ghirlandajo. The south wall depicts episodes from the life of Moses. Above them are portraits of popes, and trompe l'oeil curtains run below.



C ALTAR WALL

The whole wall behind the altar is filled with the "Last Judgment," a fresco painted by Michelangelo between 1536 and 1541.

Christ is the central figure in the "Last Judgment." Seated at his side, the Virgin gently turns her head in a gesture of resignation.

D NORTH WALL

The images in the central section correspond to episodes from the life of Christ. The upper frieze continues the portraits of popes, while the trompe l'oeil curtains continue along the lower portion.

The Last Supper by Cosimo Rosselli

Azor and Sadoch, by Michelangelo, in a lunette. The lunettes mark the lower part of Michelangelo's great ceiling above.

E ENTRANCE WALL

Here, the series of popes and biblical figures is completed with mid-16th-century works.

Dispute over the body of Moses by Matteo da Lecce

Resurrection of Christ by Hendrik van den Broeck

MALE MODELS, FEMALE FORMS

KNOWN FOR HIS INTENSE PIETY, Michelangelo was also well known for his attraction to men. As the American art critic James Saslow puts it: "Michelangelo had two passions: one was men, and the other was God." One notable aspect of Michelangelo's art is how his figures representing women often have male physiology. The great Florentine artist was known to use male models in his preliminary sketches for female figures, as the sketch to the right—a study for the Libyan Sibyl on the Sistine ceiling—so clearly shows. The rendering would then be softened and feminized to produce the finished result (below). Many artists of the era used male models in this way, regardless of their sexual orientation. One theory is that there were simply more men than women in an artist's studio, making their use as models more convenient.

BRIDGEMAN/ACI

CHARCOAL DRAWING OF THE LIBYAN SIBYL BY MICHELANGELO. METROPOLITAN MUSEUM OF ART, NEW YORK

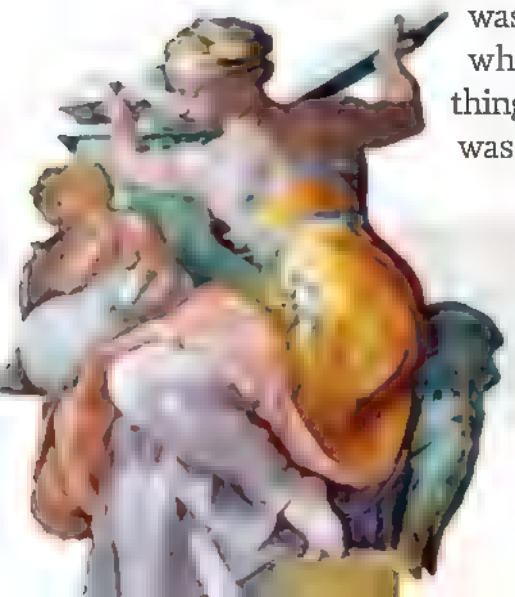
to paint a battle fresco for Florence's Palazzo Vecchio, and although some of his cartoons for this work have survived, the frescoes themselves were never painted. On various occasions, Michelangelo spoke of his own shortcomings, warning that his real talent was not for painting at all but for sculpture.

A Torturous Task

Frescoes by other artists had already been painted on the walls. Michelangelo was to paint the whole ceiling, a structure roughly 132 feet long and 44 wide. Filling an expanse of nearly 6,000 square feet with frescoes would have daunted even the most experienced of painters. Even so, the Florentine held his nerve, and pushed for the best possible deal. In May 1508 a proposed plan was dismissed by the artist, who thought it "a poor thing." In the next iteration he was given carte blanche.

The scope was breathtaking: The vault itself is dedicated to episodes from the Old Testament, divided into three sections: the Creation, the Garden of Eden, and the Flood. The space left over was also filled with painting. In the semicircular lunettes above the windows, and in the roughly triangular spandrels, were placed biblical figures who preceded Christ. Panels above them were reserved for prophets who had, according to Christian scripture, foretold Christ. Faithful to the Renaissance classical spirit, Michelangelo included sibyls in this prophetic tradition, including the Libyan Sibyl. The pendentives at the four corners of the ceiling recount episodes in the salvation of Israel.

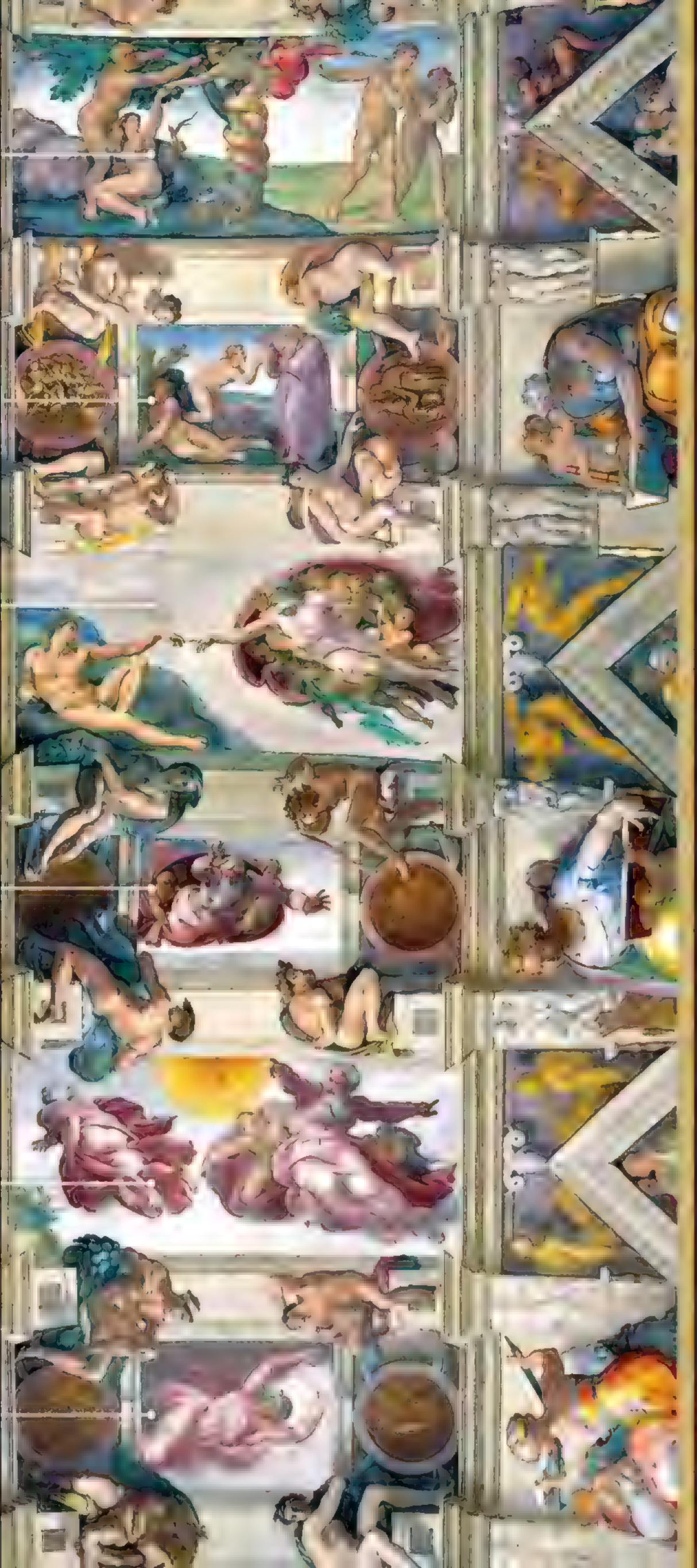
Vast technical problems beset the artist at the outset. In his book *Lives of the Most Excellent Painters, Sculptors, and Architects,* Giorgio Vasari, the 16th-century architect, artist, and writer, records some of Michelangelo's trials. The fresco technique Michelangelo used, which requires



Faithful to the High Renaissance classical spirit, Michelangelo depicted sibyls as prophetic figures.

THE LIBYAN SIBYL, SISTINE CHAPEL CEILING (1508-1512)

ARCHIVIO FOTOGRAFICO MUSEI VATICANI



IN THE BEGINNING

The nine panels of the Sistine Chapel ceiling depict iconic scenes from the Old Testament, but perhaps Michelangelo's most famous imagery can be found in the first six panels, which show the creation of the heavens, the earth, and humanity according to the first three chapters of Genesis.

1 **Light and Darkness**
According to the Book of Genesis, God first creates light and then separates it from darkness. Michelangelo represents God giving form to the light with one hand while pushing away darkness with the other.

2 **The Earth, the Sun, and the Moon**
In this panel, Michelangelo depicts God twice: On the left, God covers the earth with vegetation. On the right, God creates the sun and moon to be "lights in the dome of the sky to give light upon the earth" (Genesis 1:15).

3 **The Waters and the Heavens**
In this small, central panel, Michelangelo shows God as he separates the waters from the firmament of heaven. In the upper part of the frame, the vibrant, cerulean blue of the sky appears over the deep, dark blue of the ocean.

4 **The First Man**
Accompanied by angels, God stretches his hand toward Adam, the first man. Michelangelo captures the moment when God passes the breath of life to Adam, whose physical form reflects that of the divine.

5 **The First Woman**
Genesis tells how God places Adam in the Garden of Eden and has him fall into a deep sleep. As Adam slumbers, God removes one of his ribs to form Eve, the first woman, whom Michelangelo shows already fully formed and prostrating herself before God.

6 **Paradise Lost**
Michelangelo depicts the fall of man in two scenes on one panel. On the left, the serpent presents Eve the forbidden fruit, while Adam seeks it out in the tree of knowledge. On the right, the couple is banished from Eden.

ARCHIVIO FOTOGRAFICO MUSEI VATICANI

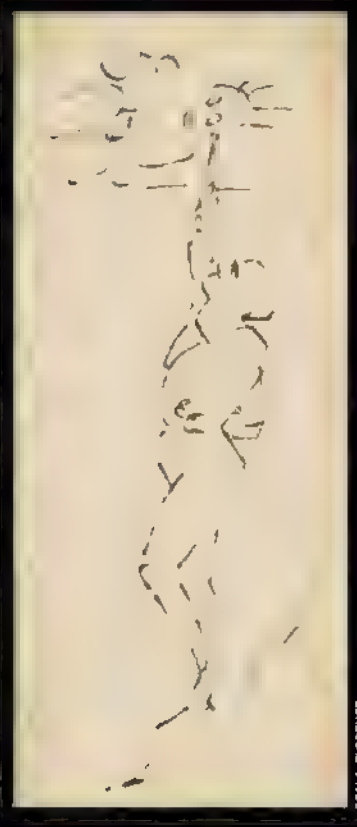
CONTORTIONS AND CREATION

A LETTER WRITTEN by Michelangelo to his friend Giovanni da Pistoia provides a fascinating insight into the excruciating day-to-day discomfort he had to endure while painting the Sistine ceiling. Explaining his plight in a sonnet, he included a self-mocking sketch (right) in the margin. An extract of the sonnet follows:

My belly is pushed by force underneath my chin.
My beard toward Heaven, I feel the back of my skull
Upon my neck, I'm getting a harpy's breast;
My brush, always dripping down above my face,
Makes it a splendid floor.

. . . . . .

Before me, my hide is stretching
And to fold itself behind, ties itself in a knot,
And I bend like a Syrian bow.



SELF-PORTRAIT OF MICHELANGELO PAINTING THE CEILING OF THE SISTINE CHAPEL. CASA BUONARROTI, FLORENCE

SCALA, FLORENCE

applying washes of paint to wet plaster, left no room for error or revisions. Time was of the essence. Once sketches were prepared, they had to be divided up into sections that could be finished in one day. If he attempted to do too much at once, the plaster would dry out and would not absorb the colors. Once a section of wall had been chosen, it was prepared first with whitewash and then with plaster made from a mixture of pozzolanic ash, lime, and water. The drawing was transferred to the plaster, and then the colors were added immediately.

Michelangelo brought a few trusted artists from his native Florence to work with him. But the Florentine plaster recipe they preferred did not work with the Roman materials and climate. Patches of mildew sprouted, and the paint had to be removed and reapplied, which slowed progress.

Meanwhile, Julius became so impatient for Michelangelo to complete the project that, according to Ascanio Condivi, the artist's biographer, the pope threatened to throw the painter off the scaffolding and on one occasion actually hit him "with a stick." Finally, in 1512, after four years of physical and creative dedication, Michelangelo finished his monumental work.

Souls in the Balance

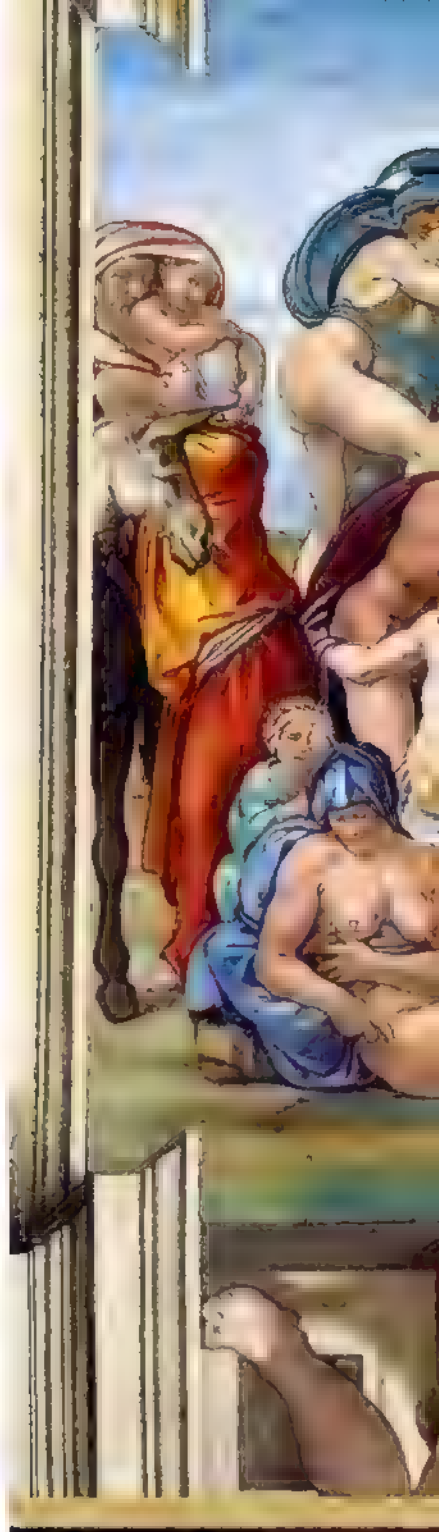
Michelangelo's contribution to the Sistine Chapel, however, was not complete. More than 20 years later, in 1536, Pope Paul III commanded that he paint a fresco of the Last Judgment on the wall behind the altar. Michelangelo, then over 60, reluctantly accepted. When the work was finished in 1541, Paul III is said to have fallen to his knees in prayer.

In the decades since the completion of the ceiling in 1512, Paul III's predecessors, Leo X,

In 1536 Paul III commanded Michelangelo, then age 61, to paint the "Last Judgment."

POPE PAUL III, PORTRAIT BY TITIAN, KUNSTHISTORISCHES MUSEUM, VIENNA

SCALA, FLORENCE



THE FLOOD, SISTINE CHAPEL CEILING, 1508-1512

ARCHIVIO FOTOGRAFICO MUSEI VATICANI

NOAH'S FLOOD

THE EIGHTH PANEL of the Genesis sequence depicts the Flood sent by God to punish humanity for its wickedness—except for Noah and his family, whom God had instructed to build an ark that would save them and the animals. God makes it rain for 40 days and 40 nights, unleashing a deluge that will cover the earth with water. Here, Michelangelo shows people's vain attempts to escape the rising floodwaters. He contrasts their fear and panic with the ark, which sits serenely in the background, a place of quiet salvation. When the flood has ended, every living thing on the earth will be wiped out—except for Noah, his family, and the animals that sailed with them on the ark.

1 The Ark

The ark floats atop the flood, safe and secure, almost like a fortress. Desperate people try to get inside; one of them tries to raise a ladder, while another takes an ax to the boat. The only signs of habitation from the ark are Noah leaning out a window and a white dove in the uppermost window.

2 The Lost

A small, unsteady boat is tossed by the tempest, and its passengers are in a panic. The crew fight, and two cling to its sides. The Book of Genesis says that water covered the earth for 150 days, and "everything on dry land in whose nostrils was the breath of life died" (Genesis 7:22).

3 The Island

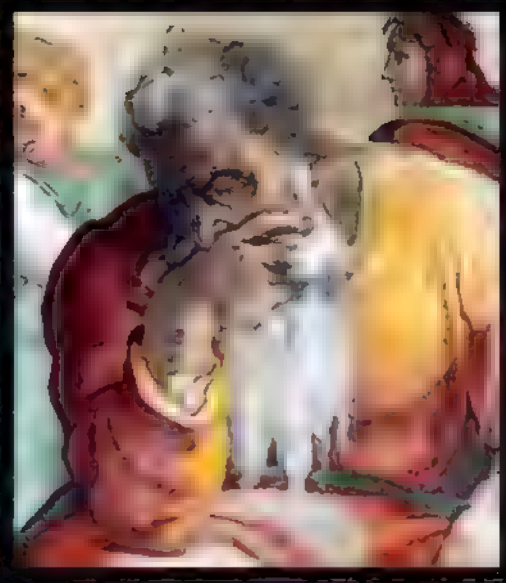
People of different ages are taking refuge on a small rocky island. Their anguish is palpable. An elderly man carries a limp body, perhaps his son. As the waters continue to rise, a makeshift shelter is about to be blown away—along with the last remaining leaves on a stunted tree.

4 The Mountain

Michelangelo depicts a group of desperate people climbing up a mountain carrying their belongings. Despite moving to higher ground, they are doomed by the rising waters, for God will cover the mountains with water "fifteen cubits deep" (Genesis 7:20).

THE ARTIST AS AN OLD MAN

PLACED OPPOSITE the youthful figure of the Libyan Sibyl on the Sistine ceiling, Michelangelo's portrait of the Prophet Jeremiah is a powerful study of melancholy. Flanked by mourning women, the prophet seems to be brooding on the fate of Jerusalem in the Lamentations of Jeremiah: "How like a widow she has become, she that was great among the nations!" The figure is often interpreted as a kind of future self-portrait, as if the artist is imagining himself as an old man. In the 1490s Michelangelo had witnessed the brief reign in his native Florence of Savonarola, the firebrand monk who frequently cited Jeremiah as he ranted against corruption and sin. More than two decades after painting the ceiling, Savonarola's gloomy vision of man would permeate Michelangelo's fresco of the Last Judgment.



ARCHIVIO FOTOGRAFICO MUSEI VATICANI

JEREMIAH (DETAIL), SISTINE CHAPEL CEILING, 1508-1512

Adrian VI, and Clement VII, had been engulfed by the Reformation. Ironically, Luther's revolution had begun in 1517 as a protest against the selling of indulgences to pay for the huge costs of Rome's art spree. Since then, swaths of northern Europe had become Protestant.

The tortured religious circumstances of Europe at the time inevitably color Michelangelo's last contribution to the chapel. Filling the whole of the wall, the fresco is dominated by Christ who dispenses judgment. The naked figures that swarm against the lapis lazuli sky surround Christ; they are a combination of saints and martyrs. Michelangelo painted these fleshy, muscular bodies with a heft and weight not present in the figures on the ceiling.

Unlike traditional hierarchical depictions of the Last Judgment, Michelangelo has chosen a more dynamic treatment of the subject where everything flows around the central figure of Christ. Angels lift souls from their graves on the left, judgment is rendered in the center, and the damned are dragged to hell on the right. Michelangelo's depiction of hell was deeply influenced by Dante's *Inferno,* and several figures from the work appear here. Beneath Christ, the ferryman Charon guides his boat of sinners across the river Acheron where the fiendish figure of Minos waits on the other side.

By the middle of the 16th century the orthodoxy of the Counter-Reformation was strengthening. When Pius IV became pope in 1559, the years of hedonistic, art-loving popes were long past. The nudity in the "Last Judgment" was now seen as indecent. In 1562 the Council of Trent approved a decree regulating the use of images in churches, and Pius agreed that the nudity must be covered. Soon after Michelangelo died at age 88 in 1564, artist Daniele da Volterra was the first to censor the "Last Judgment," and over the centuries, nearly 40 more coverings were added.

In the 1980s and 1990s a major restoration of the Sistine Chapel frescoes revealed the vibrant colors that had been obscured over time. Michelangelo's mastery of the human form was also revealed by removing many of the drapes added by censors. When seen today, the Sistine frescoes never fail to astonish with their beauty and complexity. They reveal two distinct phases of Renaissance art as well as two phases of Michelangelo's artistic evolution.

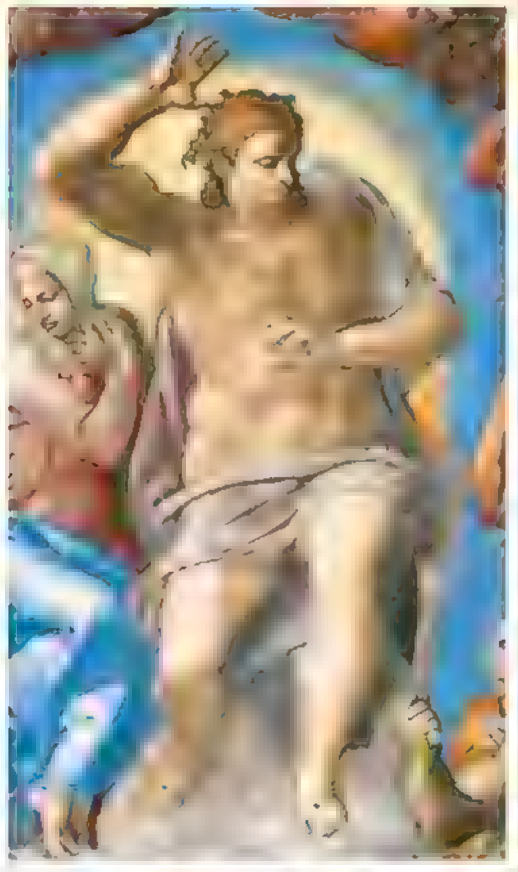
RENAISSANCE SCHOLAR **LAURA FEDI** IS A RESEARCHER AT THE NATIONAL INSTITUTE OF RENAISSANCE STUDIES, FLORENCE, ITALY

COVER UP

THE "LAST JUDGMENT" unleashed a bitter battle between its defenders and detractors. In 1545 Pietro Aretino, a writer and satirist, wrote: "Michelangelo stupendous in his fame . . . has chosen to display to the whole world an impiety of irreligion only equaled by the perfection of his painting." Vittoria Colonna, on the other hand, a deeply pious nobleworman, poet, and friend of the artist, defended Michelangelo's great work, believing that its morals were as sound as its artistry. Still, the unmitigated nudity in the scene many. The Theatines, a clerical movement by Gian Pietro Carafa, warned that "nudes in such a place." Carafa, who had Roman Inquisition in line with the spirit, became Pope Paul IV in 1555, d a reign of terror against unorthodoxy. sor, Pius IV, took an austere view of art, ed the covering up of the groin area of some sco figures. In the 1990s Vatican restorers essfully used a technique to restore luster to glorious colors of the fresco. In the course of that estoration, the decision was taken to remove some of coverings that had been "draped."

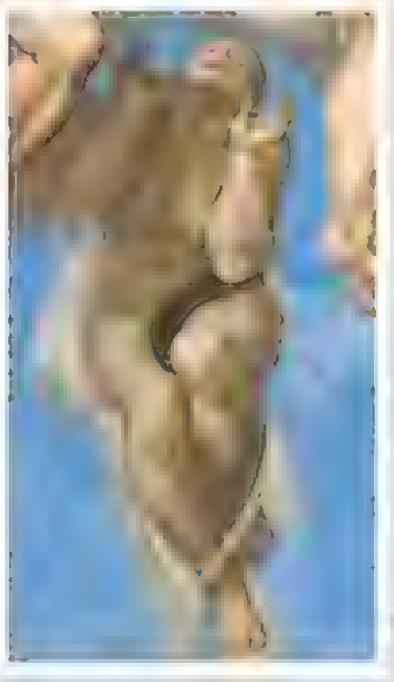
THE "LAST JUDGMENT"

Painted between 1536 and 1541, the fresco that tumbles down the altar wall of the Sistine Chapel is a swirl of movement. In his 60s, Michelangelo began working on it nearly three decades after finishing the Sistine ceiling. Medieval depictions of the Last Judgment tend to be very structured and hierarchical, but Michelangelo's looser arrangement flows in a circular motion, as the dead rise from their graves, wait for judgment, and then descend to the torments of hell. The largest figure is Christ, who stands at the center of the painting. Michelangelo's use of nudity, controversial for the time, to depict the angels and heavenly figures, reflects his passionate, lifelong belief that the perfection of the human figure is a reflection of the divine.



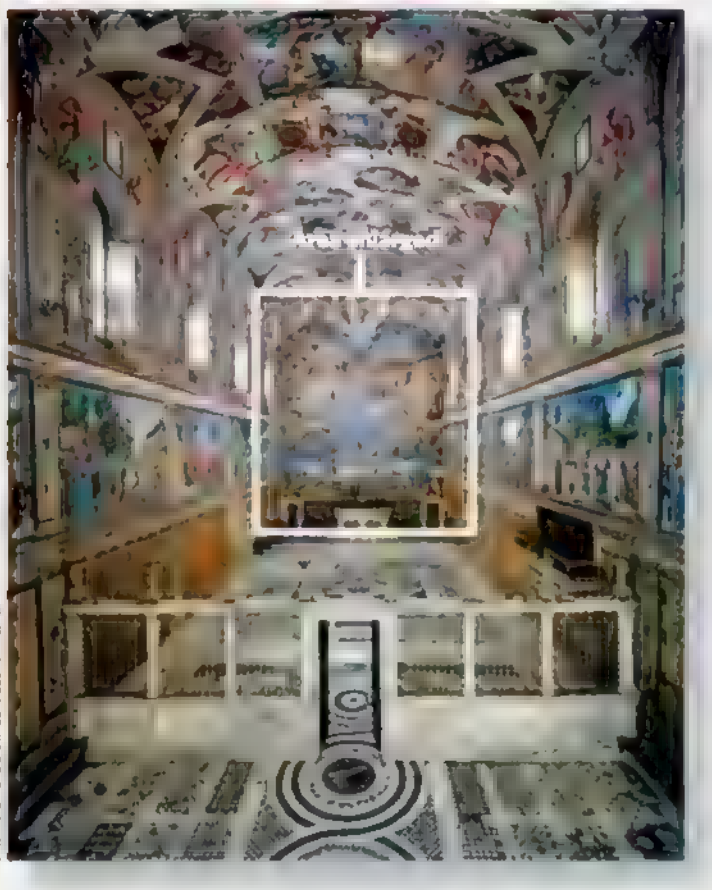
BRIDGEMAN/ACI

JUDGMENT OF HEAVEN
Beardless and almost nude, Michelangelo's Christ dominates the center of the fresco as the Supreme Judge. His body, like the others in this fresco, is very muscular and corporeal. His right hand is cast up in a gesture of damnation toward the sinners, while his left gently summons the blessed.



AGE FOTOSTOCK

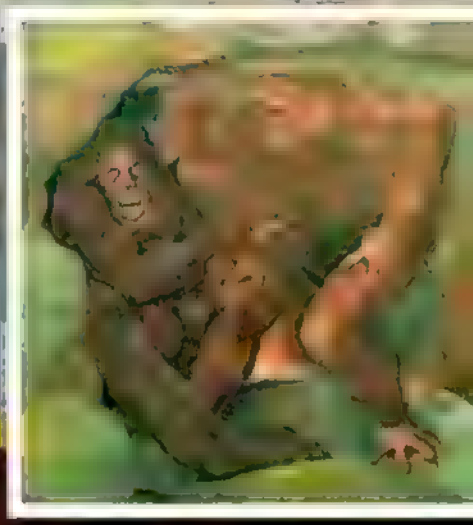
RISING FIGURE
Clothed in flesh painted in the extremely carnal and sculptural style of this late work, a soul ascends to heaven.



ARCHIVO FOTOGRÁFICO MUSEI VATICANI

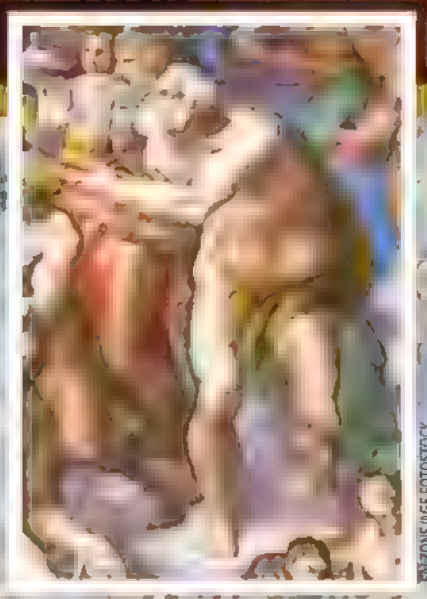
INTERIOR OF THE SISTINE CHAPEL, LOOKING TOWARD MICHELANGELO'S "LAST JUDGMENT"

MOUTH OF HELL
Two monstrous demons lie in wait at the entrance to hell. This section of the fresco appears directly over the altar, a reminder that no one is immune from the perils of sin.



ARCHIVO FOTOGRÁFICO MUSEI VATICANI

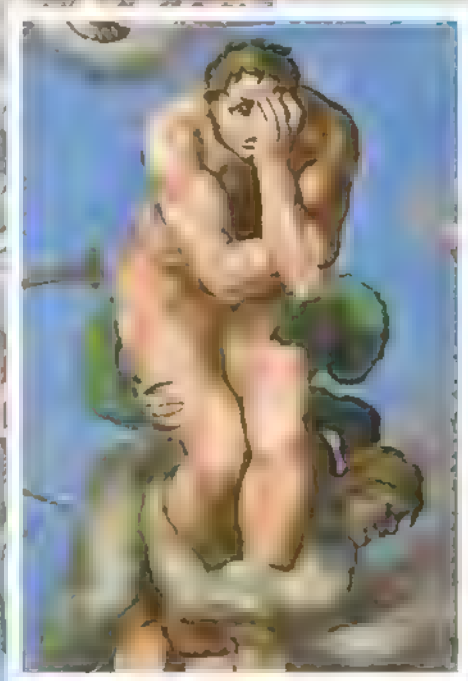
ST. PETER
Peter holds forth two keys to the kingdom of heaven. The leader of the apostles, the first bishop from whom all popes claim succession, stands before Christ among saints and martyrs.



FALZONE/AGE FOTOSTOCK

AGE FOTOSTOCK

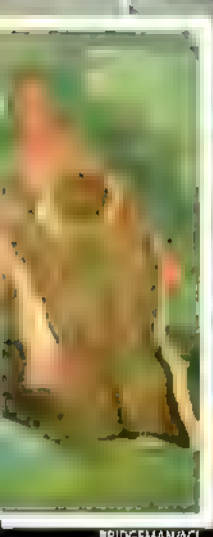
ST. BARTHOLOMEW
The apostle, who according to tradition was martyred by being flayed alive, holds his own skin, whose face is believed to be a self-portrait of Michelangelo.



BRIDGEMAN/ACI

THE HORROR
Two demons drag a damned soul into hell. Resigned to his fate, his face is frozen in fear as he looks upon the impending torment that awaits.

ROUSING THE DEAD
In the central area underneath the figure of Christ, the angels of the apocalypse awaken the dead with their trumpets.



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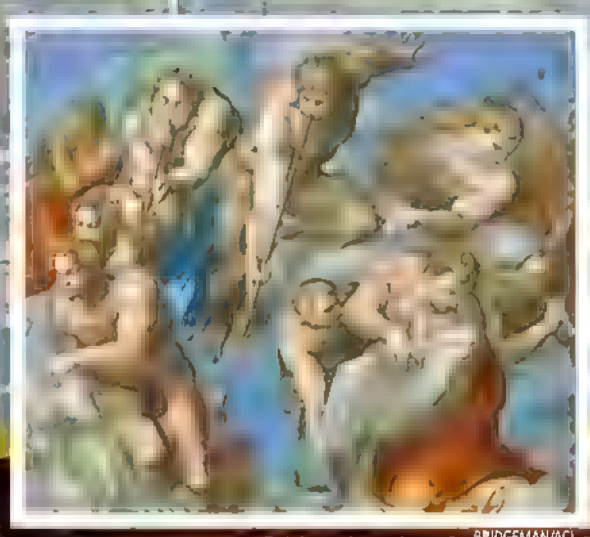


BRIDGEMAN/ACI

MINOS
Michelangelo drew on Dante's *Inferno* to feature the judge of the underworld: Minos, who appears here with donkey's ears. It is believed he is a portrait of a papal official who criticized Michelangelo's work.

BRIDGEMAN/ACI

The Muslim Warriors of Alamut

THE ASSASSINS

High in the mountains inside a secret fortress, the Nizari Ismaili, a small Muslim sect, struck terror into the massive powers fighting for control of the Holy Land in the Middle Ages. Dubbed the Assassins by their enemies, the Nizari held power for just three centuries, but their impact would last for centuries.

VICENTE MIRANDA TORRES

WHERE EAGLES DARE TO FLY

Alamut, the Assassins' fortress, now in modern-day Iran, was a place that induced terror in the hearts of Sunni Muslim rulers. Related to eagles, the name Alamut conveys its majestic height and impregnability.

NATIAZ KHVOJ/GETTY IMAGES

Assassination Origination

Circa 1045
Hasan-e Sabbah is born in Rayy, south of modern Tehran, Iran. As a young man, he will convert to and study the Ismaili branch of Shiism.

1070-1080
Bright and ambitious, Hasan proves himself a superior scholar. He is sent to Cairo for advanced study and returns to Persia as a missionary.

Circa 1090
Hasan founds a sect known as the Nizari Ismaili. They capture the mountain fortress Alamut Castle in Persia and make it their stronghold.

1092
The Nizari Ismaili murder Vizier Nizam al-Mulk, a powerful Seljuk official. The disguised Nizari agent publicly stabs the vizier in plain view of his guards.

11th-13th centuries
Through espionage, and targeted killings of powerful opponents, the Nizari build their might and establish a power base in Syria. European crusaders spread tales of the deadly assassins.

1256
The Nizari Ismaili stronghold of Alamut is destroyed by Mongol invasions, bringing their heyday to an end.

Circa 1300
The Travels of Marco Polo is published, popularizing both the term "assassin" and the sensationalized exploits of the once powerful Nizari Ismaili.

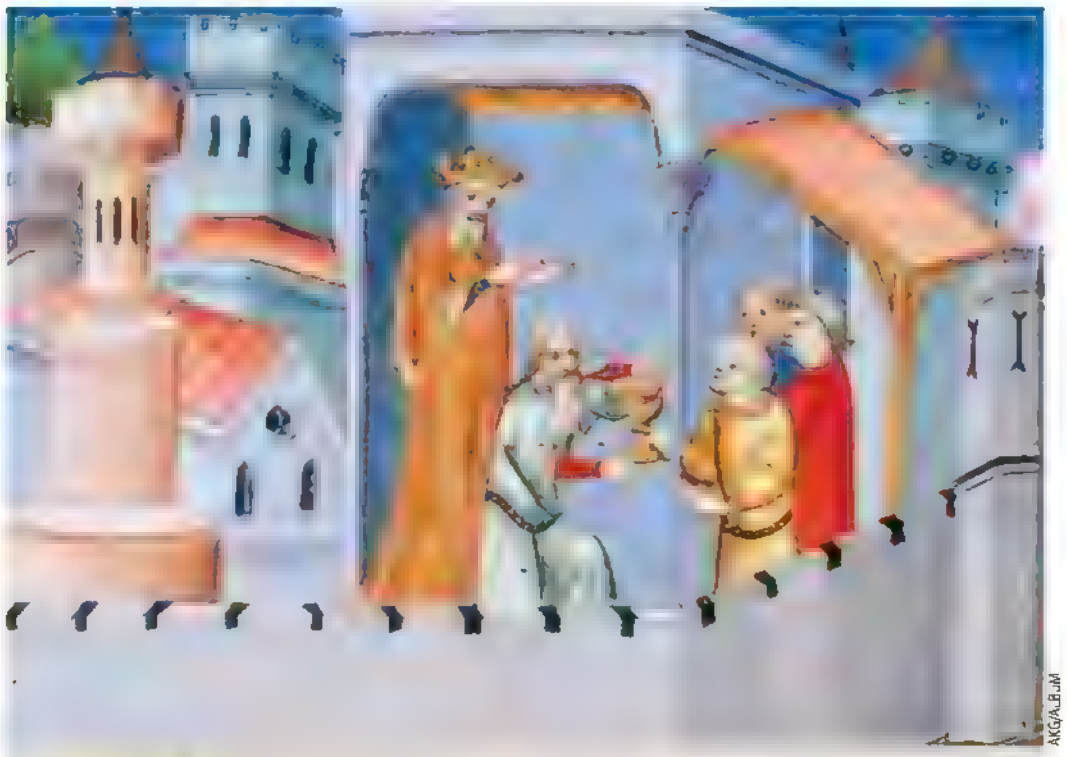
KILLING A CRUSADER
The city of Tyre (whose Roman-era ruins are shown above) was where Nizari assassins killed Italian crusader Conrad of Montferrat in 1192. Despite this strike on a Christian, the principal targets of the Nizari were Muslim.

GAVIN HELLIER/GETTY IMAGES

Conrad of Montferrat, an Italian crusader, was preparing for his coronation as king of Jerusalem, in Tyre, in April 1192. Making his way down a narrow street of the city, he was set on by two men dressed as monks, who stabbed him to death.

Although historians still speculate who ordered the attack, there is little doubt as to the identity of the killers. They were not monks, but members of a secretive Muslim sect with strongholds seated high in the mountains of Persia and Syria. Headquartered in an impenetrable Persian castle, Alamut, these agents specialized in targeted killings and espionage. Infiltrating the ranks of their enemies, they would strike at their targets, often stabbing them and willing to die for the mission. Syrian enemies called them the Hashishim, but they are better known today by the European crusaders' term: Assassins.

Perhaps the first European account of the Assassins comes from a Spanish rabbi, Benjamin of Tudela, who traveled through Syria in 1167. He told of a mysterious leader, the Old Man of



AKG/A.B.-M

BELLICOSE BEVERAGES?

THE TRAVELS OF MARCO POLO devotes several chapters to the "Assassins" and their rituals. An illustration from the 1472 edition (above) depicts a beverage being served to Nizari warriors. According to the text, the drink contained drugs to induce hostility and aggression. This falsehood enhanced the Nizari's fearsome reputation among Europeans, even though the *Travels* was published well after the Mongols defeated the Nizari in 1256.

the Mountain, who led a sect of warriors who dwelled in hidden mountain fortresses.

The dreaded Assassins were at the peak of their power in the 12th century. Much of what is believed about them comes from accounts of fascinated European crusaders and from the pens of their sworn enemies, Syrian Sunni chroniclers. Their very biased accounts must be taken with a degree of skepticism, for they were intended at times to entertain or defame. They extolled their strength and zeal while making wild exaggerated claims about their lifestyles.

One was penned by a 12th-century Archbishop of Tyre, William II, a crusader. He estimated their numbers to be around 60,000 and wrote about their extreme devotion to their leaders:

> *It is their custom to instal their master and choose their chief, not by hereditary right, but solely by virtue of merit. Disdaining any other title of dignity, they called him the Elder. The bond of submission and obedience that binds this people to their Chief is so strong, that there is no task so arduous, difficult or dangerous that any one of them would not undertake to perform it with the greatest zeal.*

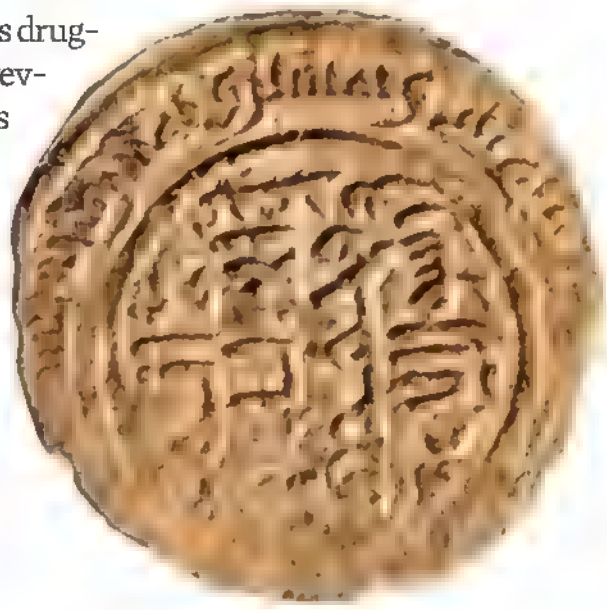
Some European reports suggested they even ate pork and married their sisters. Colorful notions about the assassins as reckless libertines were reinforced by the publication of *The Travels of Marco Polo*. The medieval best seller mentions the Syrian Old Man of the Mountain administering a drugged potion to his fanatical followers to facilitate their deadly missions. Since the sect's nickname, the Hashishim, was derived from the Arabic for "hashish," Marco Polo's account helped cement their reputation as drug-fueled thugs. Modern historians, however, regard Marco Polo's description as something of an invention itself.

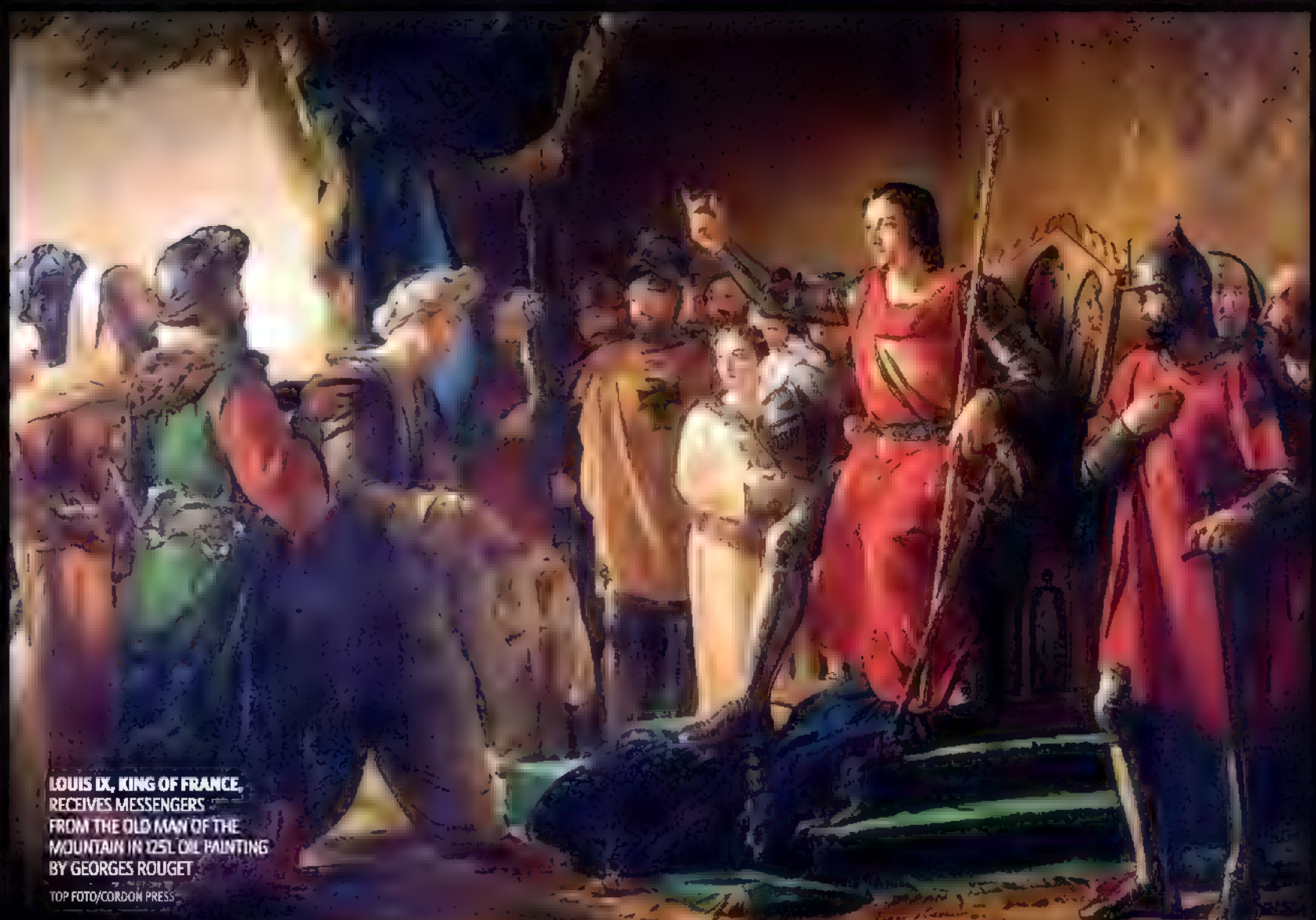
Although the sect did pass through a brief phase of extreme libertinism in the 1160s, at most other times in its history the sect was very strict and austere. The use of hashish is not found in any credible Muslim source, even among the Assassins' enemies.

ASSASSINS' GOLD

The Nizari became wealthy and powerful enough to mint their own currency, such as the 12th-century gold coin below. Numismatic Society, New York

WERNER FORMAN/GTRES





LOUIS IX, KING OF FRANCE, RECEIVES MESSENGERS FROM THE OLD MAN OF THE MOUNTAIN IN 1251. OIL PAINTING BY GEORGES ROUGET.

TOP FOTO/CORDON PRESS

FACE-TO-FACE WITH THE ASSASSINS

In the 1240s Louis IX of France launched the Seventh Crusade against the Muslims who ruled the Holy Land. After arriving in Egypt, however, Louis and other nobles were taken prisoner by Muslim forces. After securing his release through a hefty ransom, Louis took refuge in the crusader stronghold of Acre (in modern-day Israel). He attempted to strengthen the remaining Christian-held cities in Syria. This task, he found, was better done through diplomacy, directly dealing with Muslim warlords, including the Nizari.

French chronicler Jean de Joinville recorded the meetings between the king of France and the sect. After some initial overtures in 1251, Nizari emissaries brought Louis a glass elephant, amber statues, a gold ring, and a shirt belonging to their leader, "the part of dress nearest to his body."

In return, Louis sent his own delegation to visit the Old Man of the Mountain. An Arabic-speaking friar accompanied them and discussed theology with the Muslim leader. The sect, the friar reported, "did not believe in Mahomet, but followed the religion of Aly." The friar asserted that Ali was the uncle of Muhammad (he was, in fact, his cousin and son-in -law), that the two men had quarreled, and that Ali "perceiving the pride of Mahomet" had essentially created a breakaway religion. This was, of course, a misinterpretation of Shiism, whose adherents do revere Muhammad. It reflects other Christian chronicles at the time that seized on signs of internal stress within Islam to suggest that the religion was weaker than it really was.

IVORY PLAQUE THAT ADORNED A CASKET FROM THE FATIMID ERA. 10TH TO 12TH CENTURIES. BARGELLO MUSEUM, FLORENCE.

DEA/ALBUM

Middle Eastern historian and expert on the Assassins, Bernard Lewis believes that *Hashishi* was a popular Syrian term of abuse used by the sects' enemies to discredit them.

Another medieval European misunderstanding was that the sect was specifically targeting Christians. In reality, there was considerable amicable contact between the crusaders and the sect. In around 1251 France's Louis IX sent envoys to meet them. This may have suited their diplomatic needs at the time, but the sect was largely uninterested in the Christians, and primarily focused on the tumultuous changes in the Muslim world, events that had shaped them, and which they were also shaping in turn. Their story forms part of a great struggle between empires and local Muslim communities, between Arabs and non-Arabs, city and castle, and the Islamic world's enduring dividing line—the bitter rivalry between Sunnis and Shiites.

The Great Divide

In A.D. 632 the Prophet Muhammad died suddenly before he had named an heir. A fierce struggle for leadership arose, and his followers divided into factions: the Sunnis and the Shiites, the two main branches of Islam. Today there are roughly 1.8 billion Muslims in the world, of which an estimated 10 to 13 percent are Shiites. Most Shiites today live in Iran, Pakistan, India, and Iraq.

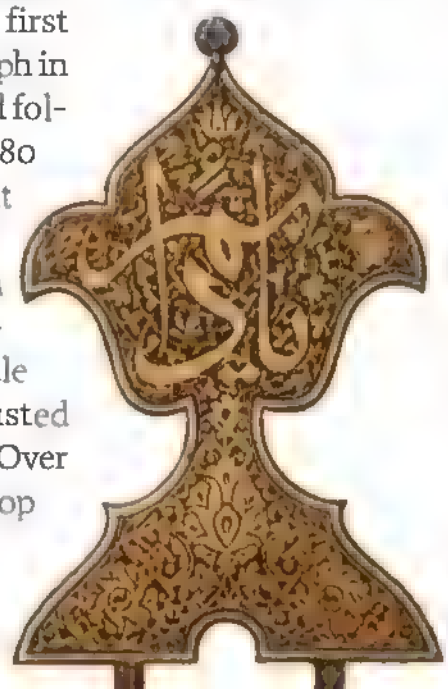
After the Prophet's death in the seventh century, Shiites supported Ali ibn Abi Talib, Muhammad's cousin and son-in-law, as heir, while the Sunnis advocated for Abu Bakr, Muhammad's friend and father-in-law. The Sunni majority won, and Abu Bakr became the first Muslim caliph. Ali became the fourth caliph in 656, but was murdered in 661. His son and followers were later slaughtered at Karbala in 680 by Sunni rivals. It was an important event that galvanized the Shiite cause.

The Shiite branch grew popular with non-Arabs in newly conquered lands, especially in Persia. The recent converts, while enthusiastically embracing Islam, distrusted the caliphate based in far away Damascus. Over time, the Shiites in Persia began to develop

IN MEMORY OF ALI

An Arabic inscription reads "Oh! Everlasting" on a 17th-century finial (below) from a standard carried to commemorate the Battle of Karbala, where the Shiite followers of Ali were martyred in A.D. 680.

QUINTLOX/A.BIIM



DREAMING TOWERS
Built by the Fatimids in 972, the magnificent Al Azhar University in Cairo reflected the Ismaili emphasis on scholarship. Today it is still one of the Islamic world's most prestigious centers of learning.

JULIAN LOVE/GETTY IMAGES

their own traditions, customs, and interpretations. Shiites favored a symbolic and cryptic reading of the Quran, taught through a strict hierarchy. While a mainstream reading of the Quran and adherence to Islamic law was considered sufficient for the masses, according to this new thinking, only an initiated elite could know the ultimate truth hidden in the sacred book.

In the eighth and ninth centuries a new Shiite faction organized around this esoteric interpretation of the Quran. Called the Ismaili, they broke from Shiism in the early 700s, after a succession dispute in which their choice—Ismail—lost. Organized in secret, they created an extensive web of learned missionaries. A strong social dimension informed Ismaili theology, the belief that a *mahdi*, or divinely guided one, would introduce a longed-for era of equity and light.

Flame of the Fatimids

The new sect, however, was not all about prayer and ideas. In 909 Ismaili revolutionaries seized power in North Africa.

JEWEL OF THE AGE
A gold-plated 11th-century Fatimid pendant inlaid with enamel (below) shows a sparrow with a flower in its mouth. Museum of Islamic Art, Cairo

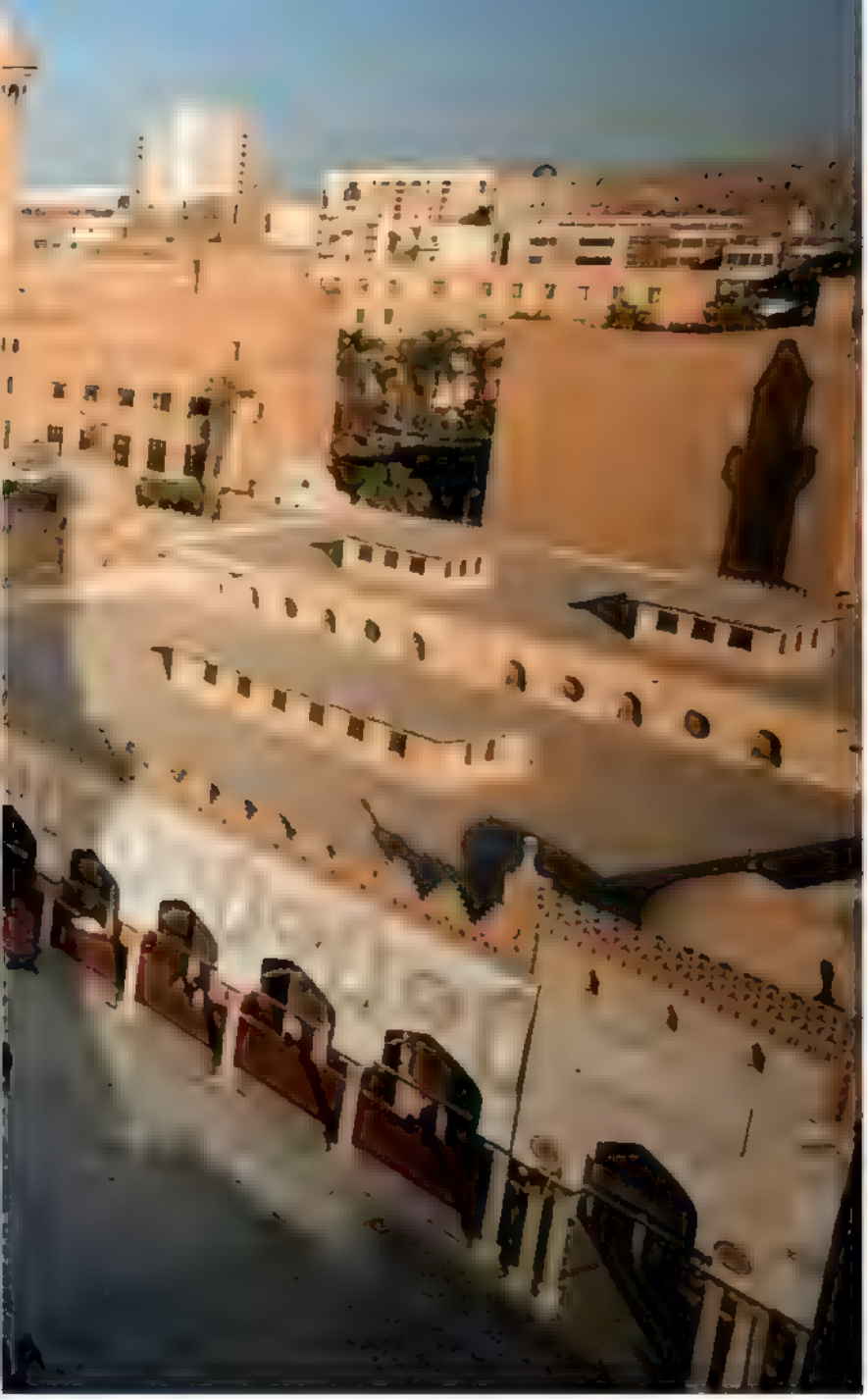
E. LESSING/ALBUM

Conquering Tunis with the help of Berber tribes, they established the Fatimid Caliphate, named for Fatima, daughter of the Prophet.

In 969 the Fatimids conquered Egypt, and founded a city near the Nile. Its name summed up their triumphant spirit: Al Qahirah, "the Victorious," known in the West as Cairo. From here, the Fatimids expanded into Palestine and Syria, forming a western Shiite bulwark against the Sunnis in Baghdad.

For a while, the Fatimid star shone brightly, but by the mid-11th century a change was once again sweeping through the Islamic world. Far to the east, a Turkic tribe from Central Asia started to conquer swaths of the Islamic world. Moving west through Persia, these recent Sunni converts, called the Seljuks, moved westward. In 1055 they took Baghdad, where they proved themselves determined defenders of their faith.

Amid the tumult, Ismaili missionaries continued their work of finding and educating new students. In the second half of the 11th century, a 17-year-old Persian named



ASSASSINATION OF NIZAM AL-MULK IN A PERSIAN MINIATURE FROM THE TOPKAPI PALACE, ISTANBUL

BRIDGEMAN/ACI

DEATH TO THE VIZIER

[redacted] better known by his title, Nizam al-Mulk, acted as the eyes and ears of the sultan. He spearheaded a Sunni revival across the vast Seljuk Empire. His treatise on government inveighed against the Nizari in particular, for which he paid a heavy price. Assassinated on the orders of Hasan-e Sabbah in 1092, his death played a role in the weakening of Seljuk power.

Hasan-e Sabbah began training in the Persian city of Rayy to become an Ismaili missionary. When he completed his education, Hasan was sent to Cairo.

The golden century of Fatimid rule had long ended, and rifts were growing within Ismailism. As the Seljuk grip tightened, the fortunes of Sunni Islam were rising. After three years, Hasan left Cairo and went to work as a missionary in Persia. His work there extended throughout the land: He gathered Ismaili converts and began to organize them against the hated Seljuks. Hasan's new faction, the Nizari Ismaili, would give rise to the infamous Assassins of legend.

Prime Targets

Hasan's followers were committed, devout, outgunned, and outnumbered. To fight against the powerful Seljuks, Hasan had to outsmart them. In 1090 he captured Alamut Castle from the Sunni Seljuks. Located in the rugged Elburz Mountains northwest of modern Tehran, the castle became his stronghold and served as the Nizari's aerie for nearly two centuries. Using infiltration, bribery, and violence, Hasan occupied other fortresses in mountainous regions of Persia and established a Nizari state with imposing defenses.

Hasan knew that battle was out of the question, so he turned to other tactics: guerrilla warfare, spying, espionage, and targeted killings. His special corps, the fedayeen, proved highly effective against carefully selected targets. The fedayeen ("those who sacrifice themselves") were drilled to murder their victim, await discovery, and then submit to torture or execution.

In 1092 the assassins made a notable killing, the vizier Nizam al-Mulk, a powerful member of the Seljuk Sultanate. Records say that a Nizari disguised himself as a Sufi mystic and stabbed him. Soon after, the Seljuk sultan, Malik Shah, was also killed. Historians believe this sultan's murder could have been committed by another sect; he had many enemies closer to home than the Nizari. Nonetheless, the murders had a domino effect, and the Seljuks were thrown into turmoil. A series of Nizari attacks followed on rulers, generals, governors, and clerics. The

Nizari seemed to be everywhere and nowhere. Their adversaries began to take extra measures to protect themselves: hiring bodyguards and wearing chain mail under their clothing.

In the last years of meaningful Fatimid rule, Hasan-e Sabbah broke ties with the Ismaili in Cairo. In the early 1100s he decided to expand the reach of his sect, sending missionaries to Syria and Palestine. The Nizari believed that they alone possessed the truth, and that an imam—a true descendant of Ali—would one day reveal himself. To their Sunni enemies whose disdainful chroniclers recorded their deeds, they were delinquents; to the Nizari themselves, they were holy warriors.

The Nizari expansion coincided with the arrival of European crusaders in Syria, who settled there after conquering Jerusalem in 1099. Sometimes the Nizari killed Christians, as was the case with Conrad of Montferrat in Jerusalem, but at other times, they were open to forming alliances with them. To the Nizari, the Christian presence was a minor irritant in their declared goal to await the revelation of the imam.

A RECLUSE

Hasan-e Sabbah (below) was believed to have stayed within Alamut Castle for the last decades of his life. He died there in 1124.

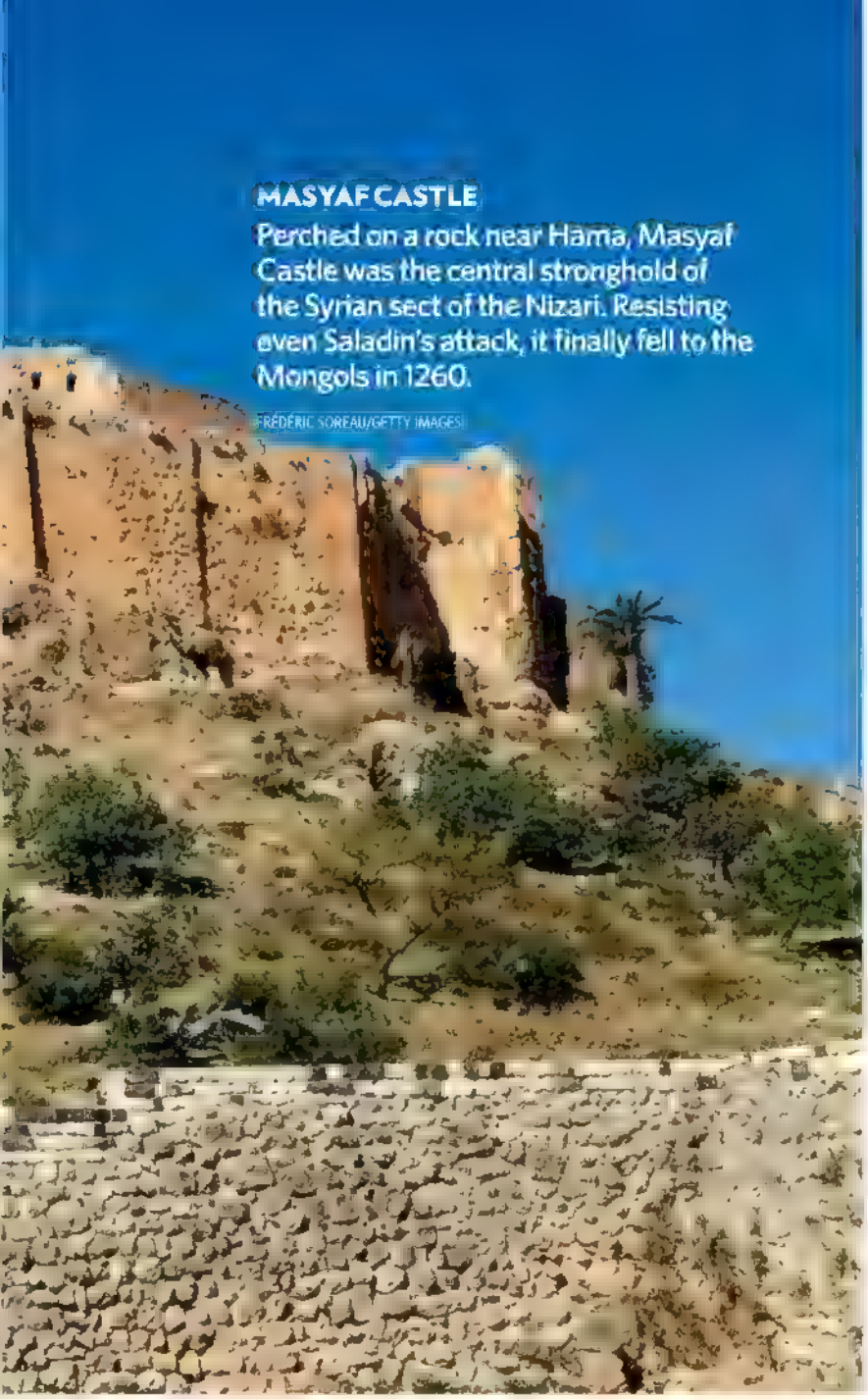
ULSTE N/PHOTOAISA

The Old Man of the Mountain

Hasan-e Sabbah died in 1124, and the sect continued without him. In 1138 his successor, Buzurg-Ummid, died, "crushed under the heel of perdition, so Hell [was] heated with the fuel of his carcass," as a Sunni chronicler colorfully described his demise. But Nizari fortunes remained buoyant, and the murders of high-ranking Sunni figures continued.

In the 1160s leadership fell to Hasan II, who took the branch in a different theological direction. Hasan proclaimed he had received instructions from a hidden imam. True believers, he said, were now relieved from moral customs, such as praying in the direction of Mecca, and could even do things regarded as sinful. This period probably influenced the lurid tales that were later collected by Marco Polo and other Europeans, even though the sect later reverted to a more austere interpretation of Islam.

Hasan II's protégé was Rashid ad-Din as-Sinan, leader of the Syrian Nizari and based at the stronghold of Masyaf. It was Sinan who was known as the Old Man of the Mountain. His



MASYAF CASTLE
Perched on a rock near Hama, Masyaf Castle was the central stronghold of the Syrian sect of the Nizari. Resisting even Saladin's attack, it finally fell to the Mongols in 1260.

FRÉDÉRIC SOREAU/GETTY IMAGES

THE SIEGE OF ALAMUT BY THE MONGOLS. 15TH-CENTURY ILLUSTRATION. BIBLIOTHÈQUE NATIONALE, PARIS

PHOTOAISA

THE FALL OF ALAMUT

IN 1255 HÜLECÜ, brother of the Great Khan of the Mongols, launched an offensive against the Nizari to neutralize attacks by the order against the new strongmen of the region. The Nizari leader, Rukn al-Din Khurshah, attempted to negotiate, but Hülegü had the fortress of Alamut destroyed in 1256, diminishing the strength of the Nizari as a military force.

struggle brought him into conflict with another central figure in the Crusades, the sultan Saladin, who set out to expel the Christian foe, and unite Islam—a goal the Nizari did not share.

Fedayeen were twice sent to kill him, but Saladin escaped. In response, he besieged Masyaf Castle but then unexpectedly withdrew. Ismaili sources claimed the Nizari had infiltrated Saladin's most trusted guards, and that he was forced to strike a deal or die. The Nizari survived that attack, but their undoing would not come at Muslim hands. Mongol invaders in the 13th century destroyed Alamut in 1256 and took down the Nizari.

Europeans continued to circulate legends of the deadly Assassins even after the Mongols took over the Nizari strongholds. The word "assassin" passed into common parlance during the 13th and 14th centuries. Dante uses it in his 14th-century epic poem, *The Divine Comedy*. In Spanish, "assassin" became the root of the common word for "murder": *asesinato*. In modern English, an assassination has retained its specific sense of killing a powerful person for political ends. The romantic idea of the Assassins still lingers in popular culture, like the series of Assassin's Creed action-adventure video games.

Although the military might of the Nizari faded over time, their faith has survived and is still practiced around the world today with Ismaili living in 25 countries, mainly in Central and South Asia, Africa, and the Middle East. While the reputation of the Assassins was largely built on exaggerations by their enemies, the impact of this small sect and its effective tactics struck fear into mighty powers and has inspired imitators ever since.

LINGUIST AND ARABIST **VICENTE MILLÁN TORRES** HAS WRITTEN EXTENSIVELY ON THE HISTORY OF THE MIDDLE EAST AND AFRICA.

Learn more

BOOKS
The Assassins: A Radical Sect in Islam
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TOP GUNS OF WORLD WAR I

THE BIRTH OF COMBAT AVIATION

JUAN VÁZQUEZ GARCÍA

UP, UP, AND AWAY
A British bombing squadron at Saint-Omer, France, readies for takeoff in 1918. Opposite: William "Billy" Mitchell, the first American airman to fly over enemy lines, is shown in the cockpit of his plane.

LEFT: BRIDGEMAN/ACI
RIGHT: CULTURE CLUB/GETTY IMAGES

THE FIRST AIR-TO-AIR KILL, OVER REIMS, ON OCTOBER 5, 1914, DEPICTED IN A HEAVILY ROMANTICIZED ILLUSTRATION BY ACHILLE BELTRAME

DAGLI ORT./AUR MAGES

October 5, 1914, seemed like an ordinary day for pilot Sgt. Joseph Frantz and observer Cpl. Louis Quénault. The two Frenchmen were flying near Reims, northern France, on board a Voisin 3 biplane. The very fact that they were airborne at all was a miracle, since little more than a decade had passed since the Wright brothers made their first manned flight near Kitty Hawk, North Carolina.

In the first months of World War I airplanes had a narrow role in the military. Small and nimble, they were beginning to take over reconnaissance from the slow, unwieldy balloons that were still used as "eyes in the sky" to record enemy movements. Although the early aviators took rifles aloft and occasionally fired at enemy planes, few envisioned them taking on a true combat role at this stage in the war.

But change was in the air. Frantz's French plane was one of the first to have a Hotchkiss machine gun mounted to a tripod on the cockpit. After detecting a German Aviatik flying close by, they approached the enemy plane and fired their machine gun. The recoil had an unsettling effect on the Voisin, but the French kept shooting. The Germans returned fire before their pilot was wounded. The German plane crashed to the ground—the first recorded air-to-air kill in history. The dogfight was born.

This undated image from early World War I [illegible] century would rapidly be surp[illegible] whose design, speed, and maneuver[illegible] bounds during four intense years of wa[illegible]

LIBRARY OF CONGRESS/CORBIS/GETTY IMAGES

THE WRIGHT BROTHERS DEMONSTRAT NG THE WR GHT FLYER. EARLY 1900S. LIBRARY OF THE DECORATIVE ARTS, PARIS
BRIDGEMAN/AC

A Brand-New Front

At the beginning of the war in July 1914, there was no consensus among the belligerent powers as to how airplanes could be put to the best use. Some Western countries had fledgling air forces thanks to the efforts and the enthusiasm of early adopters. In France aviation had gained particularly widespread popularity in a very short time: Wilbur Wright's 1908 flight demonstrations were highly popular there, and French national pride was boosted by Louis Blériot's pioneering flight across the English Channel in 1909.

When the war began, the sky wasn't seen as a possible front, much less one that could be as important as land and sea. In the military, air travel, often by balloon, was used for reconnaissance missions, so airplanes were first slotted into that role. The engines of these early planes were not very strong, and could typically only support the weight of two men: a pilot and an observer.

Navigation was also very basic, and getting lost was a real risk. Pilots would often—while in flight—have to page through maps or atlases to find their way. There are accounts of some pilots even resorting to swooping toward railroad stations to read the platform signs to orient themselves. These flights were also in danger from below. An initial lack of standardized identification led to some planes being fired upon by their own sides on the ground.

EYES IN THE SKY
A copilot shoots the terrain using a Graflex camera (above). This image was taken in 1917 or 1918, by which time aerial photography—and aviation—had made huge advances.
CORBIS/GETTY IMAGES

Often the observer was initially a cavalry officer who was experienced in traditional reconnaissance but who was unschooled in interpreting from an aerial perspective. At first, observations were recorded by hand in drawings. In time, advantages of aerial photography became clear, despite photographers having to juggle heavy box cameras in those rudimentary planes. Like aviation itself, this new technology took some time in getting recognized.

Early in the war, at the First Battle of the Marne on September 6–12, 1914, aviation demonstrated how useful it could be to armies on the ground. French and British pilots spotted vulnerabilities in the advancing German army. This intelligence helped their ground forces halt the Germans as they marched toward Paris.

Military strategists began to see how valuable the airplane's ability to expose an enemy's movements could be. They quickly learned that the ability to limit an enemy's use of the sky could yield advantages for forces on the ground. The battle for supremacy on the ground would lead to battles for supremacy in the skies. Fighter planes emerged to meet this need, and airplanes would be involved in combat as well as intelligence.

In early 1915, British military planners estimated they would need at least 50 squadrons—700 aircraft in total—to challenge Germany in the air. At the time, the Royal Flying Corps had only six squadrons in France. The situation was becoming increasingly worrisome to the Allies, and few in the top brass then were

in doubt of the significance of aviation in the unfolding conflict.

Flying and Fighting

Some 50 different aircraft designs were produced during World War I, each model trying to improve on the last. Generally they were made of wood, reinforced with wire, and covered with a varnished fabric. The pilot's seat was often placed above the fuel tanks. The landing gear was fixed, without shock absorbers, and not remotely aerodynamic. At the outbreak of hostilities, most planes reached maximum speeds of about 70 miles an hour, and only later in the war were they able to exceed 100 miles an hour.

While in the air, pilots protected themselves against the elements with a variety of accessories. The first flying kits seemed better suited for mountaineering than flying. The initial leather caps were eventually replaced by rigid helmets that would offer more protection. They were usually accompanied by goggles to protect the eyes from the wind, even if this meant a considerable reduction in the pilot's range of vision, and it wasn't until the last stage of the war that they were equipped with shatterproof glasses. The body suit, leather helmets, and bomber jackets were completed with a thick fur coat.

SOME 50 DIFFERENT AIRCRAFT DESIGNS WERE PRODUCED DURING WORLD WAR I, EACH MODEL TRYING TO IMPROVE ON THE LAST.

FRAIL FLYER
The Voisin 3 (above) is the first type of plane credited with shooting down an enemy plane while in midair. Its rear-propelled "pusher" design allowed the mounting of a machine gun in the cockpit.
HULTON ARCHIVES/GETTY IMAGES

ANTHONY FOKKER, THE DUTCH AVIATOR AND AIRPLANE DESIGNER, IN A 1916 PHOTOGRAPH

PA IMAGES/GETTY IMAGES

THE DUTCH GENIUS OF COMBAT AVIATION

THE INVENTOR who built Germany's Eindecker I, the scourge of the Allies, was not German at all, but Dutch, and his genius went beyond aircraft design. In 1915 Anthony Fokker examined a captured French plane equipped with deflectors that allowed gunners to fire through the propeller without destroying it. Inspired, he improved upon the design and created synchronization gear that allowed bullets to pass cleanly between the blades without damaging them. It is said that during a test flight he refused to fire the new weapon, as he preferred the Germans to do their own killing.

PARABELLUM MG14 MACHINE GUN, SYNCHRONIZED TO A GERMAN FIGHTER PLANE. ARMY MUSEUM, PARIS

MUSÉE DE L'ARMÉE/RMN-GRAND PALAIS

Planes with a propeller mounted behind the cockpit, like the French Voisin 3, were known as "pushers." They gave the crew an unimpeded view from which to fire a stream of bullets but were not highly rated for maneuverability. Planes with a front-mounted propeller, known as "tractors," allowed for much better flight conditions than pushers but greatly diminished line-of-sight fire.

Weapons systems were nonexistent when the war began. The earliest fighter pilots shot at each other with pistols, rifles, and even shotguns before machine guns became the standard weapon. The French Voisin 3 had a forward-mounted machine gun, and the British-made Vickers F.B.5 Gunbus, which entered action in 1915, featured one as well. Bolting a machine gun to the plane not only added a more reliable weapon, it also added complexity to combat. The tractor configuration had better aerial performance than the pushers, but the forward location of the propeller increased the likelihood of accidentally shooting it.

This changed in 1915, when a major technical breakthrough reconciled machine guns and propellers. French engineer Raymond Saulnier developed interrupter gear that regulated the machine-gun fire to allow the bullets to pass between the propeller's blades without destroying them. The propellers were further protected by fitting metal deflector plates to them. In April 1915 French forces took down three German planes with this new technology.

The Fokker Scourge

Later that month, German forces captured a French plane outfitted with the interrupter gear and used it to develop their own synchronization technology. Dutch engineer Anthony Fokker improved on the French design, and soon the Germans had an advantage over the Allies in the race to control the skies.

The Germans gained the upper hand with the introduction of the Fokker Eindecker I, meaning

"monoplane." The Eindecker's designer was the same man who invented the German "interrupter" gear. German pilots, including Oswald Boelcke and Max Immelmann, were among the most skilled in the war. A Fokker and its pilot unleashed an unnerving combination of speed, firepower, and piloting skills that ushered in a period of German superiority known as the Fokker Scourge. Some sources say that Fokker's sleek killing machine may have brought down as many as 1,000 Allied planes.

The Fokker would maintain its technical superiority until the British Airco DH.2 and new versions of the French Nieuport fighter hit the skies, which slowly built up an effective resistance against the feared Fokkers. Even with advances in British and French interrupter gear, however, German engineers strove to outclass their enemies with more stable and aerodynamic flying machines.

Death From Above

By 1916 technological innovation was still moving at an astonishingly fast pace. The belligerents harnessed it to challenge the enemy in the skies to control intelligence. They also realized the possibilities of dropping bombs on enemy airfields, positions, and cities from above, often simply by leaning over the cockpit and letting them fall. In a terrifying prefiguring of the aerial bombardment that would shape the 20th century, Germany intensified civilian raids over England in 1916, at first using Zeppelin airships and, the next year, Gotha fighter planes.

FOKKER FACTORY
In this undated photograph (above), workers at the Fokker plant near Berlin assemble the Eindecker III, a successor model of the airplane that helped tipped the early part of the air war in favor of Germany.
ALAMY/AC

BOMBS AWAY! A BRITISH CREWMAN DROPS BOMBS FROM THE COCKPIT ON ENEMY POSITIONS IN THIS 1916 PHOTOGRAPH

PVDE/BRIDGEMAN/ACI

The year 1916 saw important advances in tactical organization. In January the first real combat formations started to be displayed over France. The French themselves adopted a "V" formation for their bombing missions, with the fighters escorting the bombers from a more elevated position. The British used a similar formation, while the Germans started to use groups of several planes, known as the *kette*.

Rules of Engagement

As with technology and training, Germany led the field in tactics, honing them to deadly effectiveness during the long Battle of Verdun, which dragged on from February to December 1916. German ace Oswald Boelcke wrote a list of basic rules known as the Boelcke doctrine—precepts that were, in turn, adopted by Germany's foes, and which are still studied by modern fighter pilots. The doctrine centers on avoiding attack until an advantageous position is secured. Pilots must work as a team, take cool decisions as to whether engagement is worthwhile, and not engage in foolish acts of bravery. A pilot must wait until his enemy is vulnerable, and then relentlessly pursue that advantage. An attack from the rear, Boelcke taught, must be met full on.

By summer 1916 the British had swelled their personnel to some 42,000, including crews and ground staff. Even so, the German loss of planes and pilots was far lower than that of the Allies, and the German air force was formidably united and disciplined. Boelcke, by then, was commanding one of the Jadgstaffel or specific fighter units (known by their abbreviation, Jasta), whose single-minded goal was to destroy large numbers of enemy craft and tighten Germany's grip on aerial supremacy. Boelcke embarked on intensive pilot training to keep his squadron, Jasta 2, manned with the best aviators, creating a unified and aggressive team.

In October 1916 Boelcke was killed. The squadron, plunged into grief over the loss of the 25-year-old ace, was renamed Jasta Boelcke in his honor. In January 1917 Manfred von Richthofen, one of his star students,

CLOSING RANKS Horace Davis's 1919 painting (above) shows German fighters pursuing British DH.9A biplanes flying in a tight defensive formation developed earlier in the war. Imperial War Museum, London

IMPERIAL WAR MUSEUM/AURIMAGES

took command of Jasta 11. The squadron was now flying Albatros fighters, which had replaced the Eindeckers. Faster than the Allied planes, these newer models could even carry two machine guns. Richthofen painted his entire plane bright red, which earned him his more famous moniker: the Red Baron. He would become famous for his tactical mind and his lethal accuracy. Following Boelcke's precepts, he would fly higher than the rest of the formations and lure the enemy into his stunning attacks.

Part of the Boelcke doctrine—integral to German training, and which the British only gradually adopted—was the principal of prudence: Do not get involved in a fight for the sake of playing the hero. As late as 1916, some British aviators regarded this commonsense formula with disdain, as cowardly rather than smart. After being taken prisoner in late 1916, a German aviator, with leisure to observe the fights in the sky, wrote: "You [British] pilots…never weigh the situation. I saw one of your machines take on one Fokker, two Fokkers, then three Fokkers, before being shot down at Lille. We do not look for fights unless it's our duty."

The prudent, calculated tactics of the Germans meant

OSWALD BOELCKE IN A 1916 PHOTO, SHORTLY BEFORE HIS DEATH, AGE 25. THE GERMAN ACE FORMALIZED AERIAL COMBAT TACTICS AS THE "BOELCKE DOCTRINE."

ULLSTEIN BILD/GETTY IMAGES

THE CRUELEST MONTH
In "Bloody April" 1917 British forces lost hundreds of pilots. Graham Turner's painting (above) shows British preparations for an April 14 mission, a day when six planes were shot down.

GRAHAM TURNER/WWW.STUDIO88.CO.UK

that when their attack came, it would be devastating. In spring 1917 the Red Baron's Albatros fighters aggressively attacked British air cover during the Battle of Arras, inflicting huge casualties during what became known as Bloody April.

Although German pilots chose their battles carefully, they were as much a part of the developing cult of the dashing aviator as their French and British counterparts. Glamour, swagger, and heroism became associated with these daring men who not only flew dangerous machines on the cutting edge of technology but also followed a code that harked back to an earlier age of chivalry and honor.

ORDERS TO FLY COULD COME AT ANY TIME. ONCE AIRBORNE, THE RISK OF DEATH FOR A PILOT WAS SIGNIFICANTLY HIGHER THAN THAT FOR SOLDIERS FIGHTING IN THE TRENCHES.

The Ace Race

To challenge the German Jastas, Allied squadrons also developed their own legendary teams. The Sopwith Triplane, a fast but flawed model, became famous under the piloting of the Black Flight, a Royal Naval Air Service unit manned by five Canadian pilots. The team was named for the decision of its leader, Raymond Collishaw to paint the triplanes midnight black. Each plane had a different name: *Black Maria, Black Rodger, Black Death, Black Sheep,* and *Black Prince*.

In desperate need of heroes to distract the reader from the blood and carnage of the battlefield, the press was only too happy to recount the exploits of these new knights of the skies, hailing men like Britain's Albert Ball, Canada's Billy Bishop, France's René Fonck, and—later—the American Edward Rickenbacker. It is said that when French aviator Roland Garros (for whom the grand-slam tennis tournament is named) shot down his third plane, the press hailed him as *un as*, an ace. The term became common currency among the Allied powers for those pilots who obtained five victories (Garros, in fact, only scored four in the end), and the ace bar was later raised to 10 confirmed victories.

Of course, only a few World War I pilots were feted in such a way—regular corps fliers, who risked their lives on a daily basis, passed anonymously into history, many paying the ultimate price. Most aviators, however, enjoyed comforts above the rest of the armed forces. Clean accommodations, soft beds, and plenty of good quality food and alcohol were the norm. But this lifestyle came with a high price. Orders to fly could come at any time. Once airborne, the risk of death for a pilot was significantly higher than that for soldiers fighting in the trenches. By 1917 British squadrons were losing around 200 pilots a month. It is said that a pilot arriving in France after his basic training had a life expectancy of around 11 days.

Machine guns. Two 8.92 mm synchronized Spandau LMG 08/15
The wings were made nearly entirely out of wood, with steel joints and struts.
Ailerons in the top wings improved the plane's maneuverability.
Tail, made with innovative metal reinforcements and stabilizers
The cockpit was placed aft to counterbalance the weight of the motor. This afforded the pilot poor vision when taking off, but visibility was excellent during the flight.
Fuselage. A structure formed by empty metal tubes made the plane more solid than the other planes of the time.

FOKKER DR.1

Most famous pilot: Manfred von Richthofen, aka the Red Baron
Built by: Fokker, 1917
Max wingspan: 23 ft. 7 in.
Height: 9 ft. 8 in.
Maximum speed: 115 mph
Number produced: 320

SOPWITH TRIPLANE

Most famous pilot: Raymond Collishaw
Built by: Sopwith Aviation Co., 1916
Max wingspan: 26 ft. 6 in.
Height: 10 ft. 6 in.
Maximum speed: 117 mph
Number produced: 147

RED VERSUS BLACK: THE TRIPLANES

In 1916 British aircraft designer Thomas Sopwith created an aviation innovation: the triplane. By triple-stacking and narrowing the wings, Sopwith increased a pilot's field of vision and created a craft that excelled on rapid ascents. Canadian pilot Raymond Collishaw and his Royal Naval Air Service squad enjoyed victories with their triplanes, which were all painted a distinctive black. Seeing the success of this British model against their own Albatros fighters, the Germans produced the Fokker DR.1, perhaps the most iconic aircraft of World War I, especially after the Red Baron painted his his signature scarlet. Despite initial success, inherent engineering flaws in the three-wing system were discovered, and the triplane would soon disappear from the skies.

TRIPLANE ILLUSTRATIONS: SOL 90/ALBUM. **PHOTOS, LEFT TO RIGHT:** MUSEUM OF FLIGHT/CORBIS/GETTY IMAGES; GRANGER/ALBUM

A U S. POSTER FROM 1917 BY PAUL VERREES ENCOURAGES ENLISTMENT IN THE FLEDGLING AMERICAN AIR SERVICE

PHOTO 12/GETTY IMAGES

Finishing the Job

The war was growing desperate for Britain and France in 1917. In spring the Russian government fell into chaos as the hardships of war drove the Russian people to revolt, and Tsar Nicholas II abdicated. In the United States, whose people had been reluctant to get involved in a European conflict, public opinion was starting to turn against Germany. German submarines had begun sinking American merchant vessels at sea, causing an outcry among the American people. In April 1917 President Woodrow Wilson was finally able to bring the United States into the fray and pledged "to make the world safe for democracy."

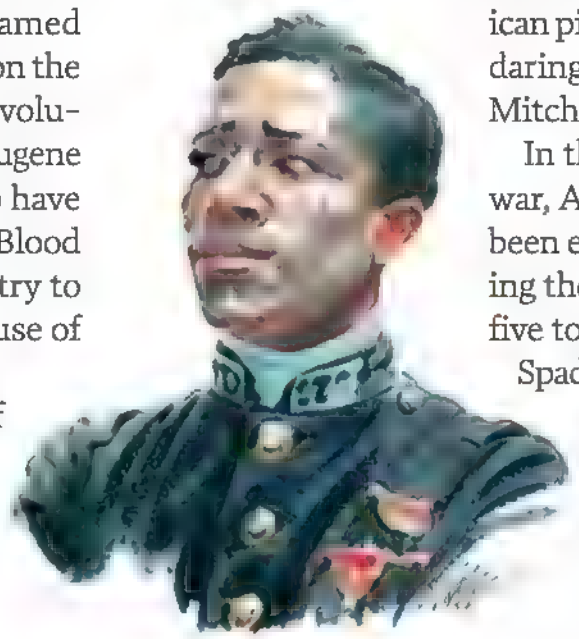
American aviators had already gained battle experience in the war, fighting as volunteers for the French. In April 1916 France had a unit composed entirely of American fliers. Later that year, many American pilots formed the unofficial "Lafayette Squadron," nicknamed for the French marquis who had fought on the side of the patriots in the American Revolution. The first African-American pilot, Eugene Bullard, fought in France and is said to have had a motto painted onto his plane: "All Blood Runs Red." Bullard was later refused entry to the newly created U.S. Air Service because of racial segregation.

Faced with a similar situation to that of the European powers in 1914, the United States had little airpower—only six aircraft—when they entered the war in 1917. A recruitment drive followed, new aircraft were ordered, and by May 1918, the U.S. Army Air Service was created. American flying legends rapidly emerged, including the superstar American pilot, Capt. Edward Rickenbacker, and the daring commander Brig. Gen. William "Billy" Mitchell, father of the United States Air Force.

In the months leading up to the end of the war, Allied superiority in the air had already been established. The Allies were outproducing the Germans in aircraft by approximately five to one. By the last year of the war French Spad XIII biplanes were being mass-produced and proving highly effective against the enemy. The British unveiled their own distinctive aircraft: the Sopwith Camel

EUGENE BULLARD (BELOW), WHO FLEW M SSIONS OVER FRANCE 1917-18, WAS THE WORLD'S F RST AFRICAN-AMERICAN COMBAT PILOT.

COLUMBJS LEDGER/GETTY MAGES



VICTORY LINEUP
American pilots prepare their Sopwith Camel biplanes in a photograph taken in 1918 (above).

CHARLES PHELPS/GETTY IMAGES

biplane. Entering the skies in the summer of 1917, the Camel was notoriously hard to handle, but when manned by experienced pilots, it became the scourge of German aviators. Not even the formidable German Fokker D.VII could turn the tide.

A key event came in September 1918 when the Allied forces faced off against Germany in the Battle of Saint-Mihiel. In a highly coordinated attack between ground and air forces, Billy Mitchell commanded the aerial assault for the Allies, who flew nearly 1,500 planes into battle. Mitchell's strategy—to send relentless wave after wave of planes—devastated German ground forces. The new burst of energy provided by the United States in the air and on the ground had helped tip the scales in the Allies' favor, and the war would finally come to an end in November 1918.

A conflict whose opening months saw the birth of aerial combat, ended with aircraft capable of speeds and maneuverability that would have stunned prewar aviation amateurs. The 19th-century world order had been torn to shreds. Europe and the world was transformed; old empires—Russian, Austro-Hungarian, and Ottoman—lay in tatters. The dawning American century was also to be the century of the airplane, endowed with ever greater speeds and terrifying firepower.

MILITARY HISTORIAN **JUAN VÁZQUEZ GARCÍA** IS A SPECIALIST ON THE EVOLUTION OF AERIAL COMBAT DURING THE FIRST WORLD WAR.

WORLD WAR I FLYING ACES

In 1918, when the United States entered the air war, the number of "kills"—victories that result in the downing of an aircraft—required to become an ace was reduced from 10 to five, as it was considered unlikely American pilots would have time to make 10 kills before Germany's defeat. Some, in fact, scored far higher than 10, such as Edward Rickenbacker, who chalked up 26.

BILLY BISHOP IN THE COCKPIT OF HIS PLANE, CIRCA 1918

KEYSTONE/GETTY IMAGES

TOP PILOTS OF WORLD WAR I SOURCE: *AIR ACES*, C. SHORES (1983)

1	**Manfred von Richthofen** (Germany)	80
2	**René Fonck** (France)	75
3	**Billy Bishop** (Canada)	72
4	**Edward Mannock** (Great Britain)	68
5	**Ernst Udet** (Germany)	62
6	**Raymond Collishaw** (Canada)	62
7	**James McCudden** (Great Britain)	57
8	**Donald MacLaren** (Canada)	54
9	**Andrew Beauchamp-Proctor** (S. Africa)	54
10	**Georges Guynemer** (France)	54

BILLY BISHOP
(1894-1956)

Obsessed with flight from boyhood, Canadian Bishop entered the Royal Flying Corps as an observer in 1915, later training as a pilot. Soon after seeing active service in March 1917, he started to chalk up a remarkable number of kills, on one occasion shooting down three German planes in one sortie. He received the Victoria Cross in 1917, and survived the war.

THE RED BARON
(1892-1918, VAUX-SUR-SOMME)

Manfred von Richthofen became a legend in Germany. In September 1916 he entered combat as a fighter pilot, and despite a poor start, his "hunting" skills soon led him to obtain the highest German military honor, the Pour le Mérite, in January 1917. After 80 victories, he was shot down on April 21, 1918, possibly by antiaircraft fire.

MANFRED VON RICHTHOFEN, BETTER KNOWN AS THE RED BARON, HAD THE MOST CONFIRMED KILLS OF ANY PILOT IN WORLD WAR I.

AKG/ALBUM

MAX IMMELMANN LED THE FOKKER SCOURGE AGAINST THE ALLIES.

BRIDGEMAN/ACI

ALBERT BALL POSES WITH THE TROPHIES OF VICTORY NUMBER 43, TAKEN TWO DAYS BEFORE HIS PLANE WAS SHOT DOWN.

EDWARD RICKENBACKER '78
AN UNDATED PHOTOGRAPH
LIBRARY OF CONGRESS/GETTY IMAGES

▲
ALBERT BALL
(1896-1917, ANNOEULLIN)

A skilful marksman who displayed outstanding courage, British ace Albert Ball first learned to fly in 1915. During the war, he was known to have taken on six enemy pilots at a time. Achieving celebrity status early in the war, Ball notched 44 victories before he was shot down and killed, possibly by Lothar von Richthofen, the Red Baron's brother

RENÉ FONCK POSES IN 1918, THE LAST YEAR OF THE WAR, WITH THE INSIGNIA OF A GERMAN PLANE HE SHOT DOWN.
LEEMAGE/PRISMA ARCHIVO

▲
EDWARD VERNON RICKENBACKER
(1890-1973)

A leading race car driver when the United States entered the war, Ohio-born Rickenbacker almost didn't take flight. At age 27, he was considered too old to fly combat missions, but his commanding officer spotted his potential. Over a six-month span, Rickenbacker brought down 26 enemy planes, making him an "ace of aces" for the United States.

◀
MAX IMMELMANN
(1890-1916, ANNAY-SOUS-LENS)

Friend and rival of Oswald Boelcke, and instigator of the Fokker Scourge, German ace Immelmann invented a maneuver by which pilots could make a double dive against an enemy plane, known as the Immelmann turn. His short, brilliant career ended over Lens in June 1916, when he was killed by a British gunner.

◀
RENÉ FONCK
(1894-1953)

This French pilot, who survived the war, was the greatest Allied ace, with 75 victories (although he claimed the real figure was over 100). Famous for his nerves of steel in combat, he had such a good aim that he would frequently end his missions with ammunition to spare. Considered a braggart by some, Fonck was proud of his abilities: "I put my bullets into the target as if I placed them there by hand."

Gonur Tepe: Lost City of the Bronze Age

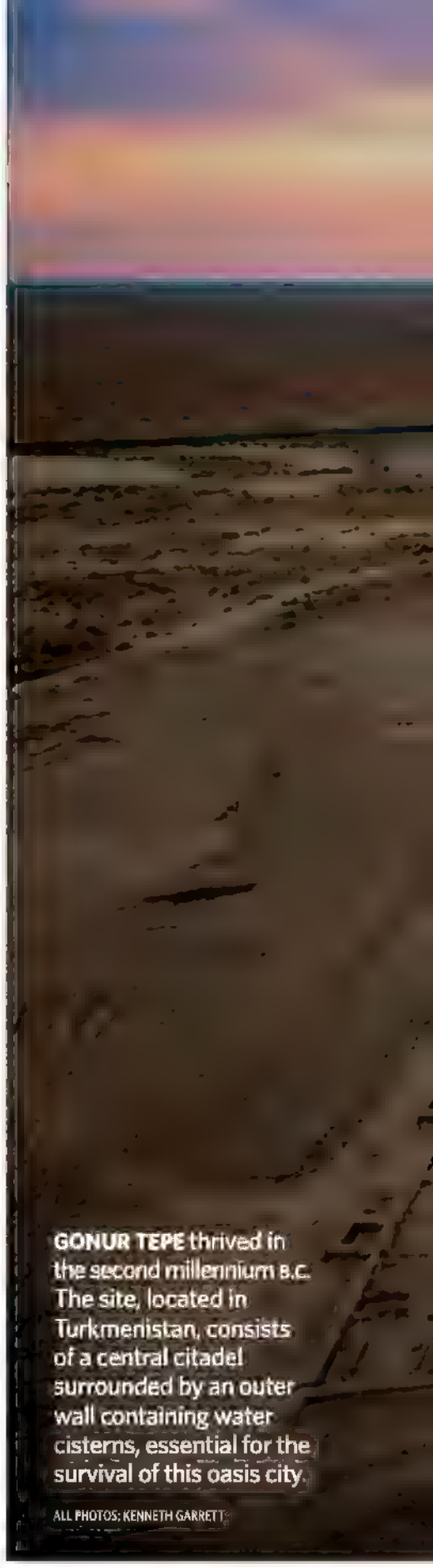
Four thousand years ago, the Oxus Civilization arose in Central Asia. Linking Mesopotamia to the Indus Valley, Gonur Tepe was capital of this vibrant culture, rediscovered in the 20th century.

The Oxus civilization thrived for only a short time, roughly 2100-1800 B.C. Located in the ancient region known as Margiana in Central Asia, the culture took root in a harsh landscape of steppe, marsh, and desert that sprawls over eastern parts of modern Turkmenistan and northern Afghanistan. For much of the 20th century, these lands lay under control of the Soviet Union, which kept much of the world from exploring the area's deep history. After the Soviet Union fell in the 1990s, the region opened up to Western scholars. They found a vibrant Bronze Age urban network that linked east and west long before the Silk Road. The key to its secrets? A remote site in Turkmenistan: Gonur Tepe.

Behind the Iron Curtain

Soviet archaeologist Viktor Ivanovich Sarianidi had made it his life's work to study the people and culture that flourished in this region, known in scholarly circles as the Bactrian-Margiana Archaeological Complex. Sarianidi first noticed the site in the 1950s when traveling in Turkmenistan, then a part of the Soviet Union. He observed a series of mounds in the bleak, wind-sculpted terrain of the Garagum desert. He wouldn't return to the site until the early 1970s, but when he did, he located the mounds again and began excavating them.

At first Sarianidi suspected the site contained medieval-era ruins, but he soon found that the site was much older. His work revealed that Gonur Tepe first rose to prominence between the late third millennium and the early second millennium B.C. Its fortunes depended heavily on the Murgap River, which rises in Afghanistan and dries to a trickle in the sands of the Garagum. The region was wetter then, and Gonur enjoyed the fertile environment of a delta region, conditions that enabled it to create a magnificent, if short-lived, culture present throughout the Margiana region.



GONUR TEPE thrived in the second millennium B.C. The site, located in Turkmenistan, consists of a central citadel surrounded by an outer wall containing water cisterns, essential for the survival of this oasis city.

ALL PHOTOS: KENNETH GARRETT

Sarianidi's pioneering work unearthed a series of nested fortifications on the principal, northern mound of the site. At the center,

SEAL BEARING AN ELEPHANT FROM THE INDUS VALLEY, FOUND AT GONUR TEPE AND PROOF OF THE CITY'S EXTENSIVE TRADING LINKS

1972
Soviet archaeologist **Viktor Sarianidi** begins digging at the site of Gonur Tepe, Turkmenistan.

1990s
Extensive excavations are undertaken in **Gonur Tepe,** revealing a great fortified palace at its center

2002
A study is published on Gonur's extensive **necropolis,** bringing to light beautifully crafted artifacts

2013
Viktor Sarianidi dies after decades of work at Gonur that has attracted **global** scholarly interest.

lay a huge citadel that appeared to have housed the city's elite. The outer ring of fortifications contained cisterns, evidence of engineering advances, as well as an awareness of their reliance on the Murgap for water.

Among the 3,000 or so tombs of the Gonur necropolis, Sarianidi's team found quantities of grave goods: gold, silver, gems, terra-cotta figures, and carved miniatures, including detailed renderings of local wildlife. Sarianidi knew he had found something significant, a thriving culture on par with other great Bronze Age civilizations, like Mesopotamia and Egypt.

Global Interest

In the 1990s, Sarianidi's work became available

(continued on page 94)

HIS LIFE'S WORK

VIKTOR SARIANIDI, born in 1929 in Uzbekistan, then a Soviet republic, forged an archaeological career deeply shaped by the Cold War. On the eve of the Soviet invasion of Afghanistan in 1978, Sarianidi unearthed a treasure hoard of some 22,000 items in a 2,000-year-old tomb at the Afghan site of Tillya Tepe. His life's quest, however, was to raise the profile of the earlier Oxus culture from Margiana, to the north. When the Cold War ended, he introduced Western scholars to his work at Gonur Tepe, where he continued working almost until his death at age 84 in 2013.

Tiny Treasures of a Colossal Culture

THOUSANDS of the tombs at Gonur Tepe have yielded expertly crafted funerary artifacts. Dating from the late third millennium to the middle of the second millennium B.C., they display distinctive characteristics of Oxus culture. Today, many are on display at the Ashgabat National Museum of History, Turkmenistan.

1. Silver pins found in Margiana often depict animals—here, a camel—and human figures. The female is dressed in the *kaunakes*, a woolen garment in the form of overlapping petals, of Mesopotamian origin.

2. This gold necklace set with semiprecious stones was found around the neck of a woman. The delicate golden snake heads are a good example of the skill and realism of Oxus metalworking.

3. Female terra-cotta figures are often believed to represent fertility goddesses. Similar figurines have been found at Gonur Tepe in domestic settings as well as in tombs.

4. This female figure has a body carved from soapstone and a head and arms made of white limestone. Similar seated figures with large bodies and smaller heads and limbs have been found across Oxus culture sites.

5. Behind these miniatures, a "giant" human fingertip grants a sense of scale. This minuscule golden ram and a carved stone lion reflect not only the local wildlife but also the great skill of resident artisans.

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❖

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❖

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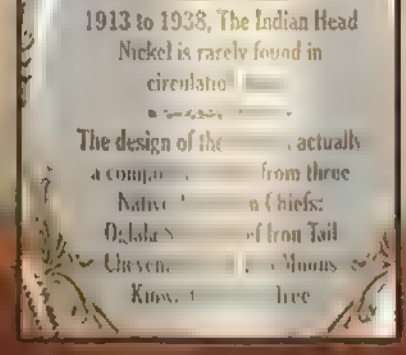
The sculpted buffalo topper and scene below are lavishly plated in 22K gold



The back features information on the coin and its Native American portrait

Shown much smaller than actual size of about 10¼ inches high

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VIKTOR SARIANIDI (center) dedicated nearly four decades of his long career to Gonur Tepe. This photograph was taken in May 2005, when he was 75.

to Western researchers, like Fredrik Hiebert, now a National Geographic explorer. Hiebert was one of several scholars who worked at Gonur with Sarianidi in the 1990s to uncover more about the Oxus civilization.

These later findings, coupled with Sarianidi's earlier work, create a fuller picture of a Bronze Age culture and its distinctive style. Similar items discovered at sites on the Indus River in Pakistan and the Indus-produced goods unearthed at Gonur suggest that such objects were spread between cities along extensive trading routes.

Unlike ancient Egypt, Gonur flourished then faded over the course of a few centuries. Some evidence suggests the city may have been sacked, or perhaps succumbed when the Murgap River changed course, which would have strained the city's water supply.

Legacy of the Oxus

Long after Gonur had waned, another city rose to prominence: Merv. Located 45 miles to the south, it grew in a part of the delta that remained fertile. The oldest of the oasis cities on the Silk Road between China and the West, Merv flourished in part due to the trading roots laid down by the earlier Oxus culture.

Gonur and its region may also provide insights into early religious developments. When excavating the ancient city, Sarianidi came across vessels with traces of poppy, cannabis, and ephedra, the ingredients used for making the soma drinks that form a central ritual of Zoroastrianism, a faith that would influence Judaism, Christianity, and Islam. Scholars are still divided as to the significance of this find, but it is an intriguing theory that this place may hold the key to an enduring mystery: the ancient origins of the world's oldest monotheistic faith.

—Alejandro Gallego

GOLDEN AMULET, PERHAPS DEPICTING A MESOPOTAMIAN DEITY, FOUND AT GONUR TEPE

Gonur's culture, with its colossal fortifications and miniaturist objects, formed a distinctive "Oxus style."

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Next Issue

JESSE JAMES: BIRTH OF AN OUTLAW

THE SON OF A PREACHER, Jesse James became one of the United States' most notorious criminals, known for a spree of robbery and murder that terrorized the West. Born in 1847, Jesse grew up on a farm in Clay County, Missouri. Like the rest of the nation, the Civil War swept up his family; its brutality hardened young Jesse, who at age 16 followed his older brother Frank into the Confederate Army where the two witnessed and committed extreme acts of violence. Driven by greed and a desire for revenge against the Union, Jesse, his brother Frank, and other fellow former Confederates turned to a life of crime after the war, a decision that birthed a legend that grew bigger, badder, and bolder with time.

YOUNG JESSE JAMES, AGE 17, PHOTOGRAPHED DURING THE AMERICAN CIVIL WAR

ALAMY/AGE FOTOSTOCK

TRUE STORIES OF THE SPANISH INQUISITION

THE CATHOLIC CHURCH'S persecution of heresy was feared all over Europe—and in few places more than Spain. Beginning in 1478 and finally ending in 1834, the Spanish Inquisition resulted in the arrest, torture, execution, and subjugation of Spain's citizens in the pursuit of hegemony. Nearly 400 years of accounts reveal the effect on Spain's people: the horrific fates of the accused; the kinds of people targeted and their alleged crimes; and the paranoia gripping an entire society as the Inquisition's spy network turned neighbors, friends, and families against each other.

PRISONERS OF THE INQUISITION (DETAIL). 15TH-CENTURY PAINTING BY P. BERRUGUETE

ALBUM

In Search of the Indo-Europeans

Many modern languages trace their origins back to the Indo-Europeans, an ancient people whom scholars are studying through a mix of archaeology, linguistics, and science.

Egyptian Law and Order

The complex details of ancient Egypt's justice system can be found in its legal papyri, from the punishment of criminals to divine statues believed to solve mysteries.

The Murder of Cicero

His sparkling oratory once thrilled the Roman Republic, but his feud with Mark Antony turned Cicero into an enemy of the state and eventually led to his brutal death.

The Roots of Robin Hood

The noble outlaw who stole from the rich and gave to the poor bears little resemblance to the original Robin Hood in medieval poems and tales of violence, misrule, and upheaval in England.

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